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**The importance of practitioner smoking status: a survey of NHS Stop Smoking Service
practitioners**

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Abstract

Objective: To investigate the smoking status of stop smoking practitioners, the impact of this on their practice, and clients' quit rates.

Methods: Smoking cessation practitioners in the UK NHS Stop Smoking Service were asked about their smoking status, client quit rates and practitioner-client interaction, using an online survey. Associations between responses were investigated using logistic regression.

Results: 51% of the sample (N=484) were ex-smokers. Most practitioners had been questioned about their smoking status by clients, with more never than ex-smokers claiming that this reduced their confidence when advising. Never smokers more frequently reported that clients questioned their ability as a practitioner, but no significant difference in quit rates was reported between never and ex-smokers.

Conclusion: Although evidence suggests smokers believe many practitioners are never smokers, this survey found that this is not true. Research investigating how many smokers may not be seeking support to quit because of this could be beneficial.

Practice Implications: Raising awareness of the similarity of quit rates achieved by never and former smoker practitioners, and the experience practitioners draw upon when offering advice, may encourage greater use of the NHS SSS. It could also be beneficial to improve training in never smokers to address confidence issues.

Keywords (from MeSH headings)

Smoking; smoking cessation; tobacco use disorder

1. Introduction

The importance of practitioner-patient relationships and how this may impact treatment and outcome has been acknowledged in general medicine [1-6]. Blasi et al. suggest compassion and reassurance by the practitioner, as well as practitioner characteristics such as status, sex, and treatment and illness beliefs influence treatment outcomes [7].

Little research has focused specifically on the characteristics of smoking cessation practitioners', and the majority of this was carried out in the 1970s and 1980s [8-11].

Lichtenstein et al. presented smokers with descriptions of a smoking program that varied on 3 factors including the smoking status of the counsellor (never smoker, ex-smoker or current smoker) [10]. Participants were asked about how they perceived the programs, and counsellor effectiveness and empathy. Counsellor smoking status had a significant main effect on all three, as a result of the ex-smoking counsellor receiving significantly more positive ratings than the never and current smokers. The same was found when participants were asked directly what type of smoking cessation counsellor they would prefer, with 86% of respondents preferring an ex-smoker, 3% a never smoker and 11% a current smoker. More recently Vogt et al. investigated the reasons why smokers were reluctant to seek behavioral support when quitting, and found that smoking cessation practitioners were assumed by smokers to be never smokers and as such to have little first-hand experience of smoking, which it was believed would make empathy and ability to offer information difficult [12]. One participant said "*With anything, if you've never been in that situation you can't understand it fully, so I think if the person who's helping you has never smoked they really cannot understand fully what problems you're going through*" p. 162 [12]. Similarly Kischuk et al. found that current and ex-smoking students felt that smoking practitioners should be

similar to them in ways, such as age and smoking history, and that they should be able to draw from personal experience rather than professional expertise [13].

The confidence of practitioners in providing treatment may be influenced by their smoking status, particularly if the negative beliefs of service users are apparent to them. A study of smoking behavior in Australian nurses, who were not smoking cessation specialists, supports this hypothesis [14]. 51% of smoking nurses, 78% of ex-smoking nurses, and 40% of never smoking nurses reported that their smoking status was helpful in providing smoking cessation care, and 13%, 11% and 31% thought it a hindrance respectively.

It may be argued that regardless of personal experience the role of a practitioner is as a health professional, and as such they should be expected to put personal feelings aside and act on expertise and training; however it may be difficult for them to completely disregard their own health beliefs and behaviors when providing support. There is contradictory evidence that the smoking status of a GP may influence their willingness to provide smoking cessation counselling [15-16], as well as some evidence that if a GP is a smoker themselves this may have a negative impact on the smoking abstinence rates of their patients [17]. In addition, social cognitive theory suggests that former smokers may hold some residual positive outcome expectations as a result of being a smoker; for example, that smoking a cigarette will decrease anxiety [18]. It may be that these residual outcome expectations negatively influence the practitioners' ability to offer support.

However, even if ex-smokers were found to be more or less effective smoking cessation practitioners than never smokers, it would never be practical or ethical to limit employment and training of smoking cessation practitioners based on their smoking history. For this

reason investigation may seem superfluous, however learning about these factors could help to improve the quality of smoking cessation services. For example, if it were found that never smokers are less confident in their ability to deliver advice this could impact upon their job satisfaction and abstinence outcomes. Therefore, ways to increase confidence could be implemented in an attempt to counteract this. As a result, our aim was to investigate the smoking status of smoking cessation practitioners, their perceptions of service users' opinions of this, how they deal with this in practice, how this affects their confidence, their quit rates, and whether these factors are moderated by their smoking status.

2. Method

Data was collected between November 29th and December 24th 2010, using the second annual National Centre for Smoking Cessation and Training (NCSCT) online survey of smoking cessation practitioners, seeing smokers on behalf of the UK National Health Service (NHS) Stop Smoking Services (SSS). Respondents accessed the survey through a hyperlink embedded in an electronic flier, sent out to all NHS SSS managers, who were asked to forward it on to all their staff delivering smoking cessation interventions. The link was also sent, via email, to everyone who had previously signed up to undertake the online NCSCT Stage 1 Training Program for providers of stop smoking services (N=1213). The full survey consisted of 84 items covering a range of topics. Before the launch of the survey it was refined through circulation amongst NCSCT staff. For a more detailed description of the methods of data collection used and the topics covered by the survey see McDermott et al. [19].

The survey items relevant to the current analysis are included in Table 2. For each item participants were asked to select their response from specified choices. All data provided was

anonymised before use. Analyses were performed using PASW Statistics 18. We investigated the response frequencies of the full dataset, and then split the participants into groups dependent on their response to the question: ‘What is your own smoking status?’

The associations between smoking status (a binary variable) and responses to the additional survey items were investigated using logistic regression and adjusted for potential confounders (age, gender, number of days of ‘off the job’ training received when started working for the NHS SSS, number of days observing experienced practitioner after training, frequency of ‘off the job’ update training, frequency of clinical supervision, confidence about own knowledge and skills in tobacco control, confidence about own knowledge and skills in smoking cessation, length of service with NHS SSS, perceived importance of service level treatment protocols to the delivery of smoking cessation interventions, job satisfaction in current role, and whether smoking cessation support is main job role or not). Comparison was not made for item six, as ‘never smokers’ responses were unavoidably limited based on their experience. Any ordinal covariates were treated as continuous to compensate for cells with zero frequencies, resulting from cross tabulations with the smoking status variable, as recommended by Suchower & Copenhaver [20]. Covariates were entered into the analysis stepwise, and were excluded if the likelihood ratio statistic resulted in a p value of <0.2 , as recommended by Rothman & Greenland [21]. The resulting odds ratios (OR) and 95% confidence intervals (CI) from the unadjusted and adjusted analyses were compared to assess whether the presence of the additional variables affected the interpretation of the results.

3. Results

We obtained data from 636 NHS SSS practitioners; of these 86 provided no data, 35 had duplicate entries, and 29 only provided contact details. For the duplicate entries the most

complete set of responses was used, resulting in a total sample of 484 participants. Due to a lack of research to establish the total number of stop smoking advisors in the UK, and the difficulties that contacting this entire group would entail, it is impossible to know what proportion of stop smoking advisors this sample represents. The median age of practitioners was 45 years (IQR = 17), and of those participants who supplied their gender (N= 451) 84% were female. The median length of time a participant had worked in the NHS SSS was 4 years (IQR= 5), and 71.3% provided smoking cessation support as their main job role (See Table 1). Only one of the participants reported being a current smoker; therefore for the sake of comparative analysis the data was split into a never smokers (N=188) and a former smokers group (N=247). In addition, 26 participants responded 'no reply' to the smoking status question; and 22 responded with 'prefer not to answer' (these participants, along with the current smoker were not included in the regression analyses).

The response frequencies for each of the questions of interest are presented in Table 2. First taking into account the whole sample, the majority of NHS SSS practitioners reported being asked about their own smoking status by clients, with 33.7% claiming that it happened 'very often' and 18% that it 'always' happened. As a result of this questioning by clients most participants reported that they did disclose their smoking status/history to the client and of those who did 91% said they did so immediately, rather than waiting until treatment was complete (9%). Despite this questioning by clients, in general, practitioners did not feel that this reduced their confidence in offering smoking cessation advice, and more people disagreed or strongly disagreed with the statement 'Ex-smokers make better stop-smoking practitioners.' than agreed or strongly agreed with it. Practitioners also claimed that this view was reflected in the behavior of clients, with 47.9% claiming that clients had never questioned their ability as a practitioner as a result of their smoking status, and 22.7%

claiming that it had happened ‘rarely’. Many practitioners reported that when providing smoking cessation advice they drew on the experience of others and/or themselves as smokers.

Firstly adjusted and unadjusted logistic regression analyses were conducted including the first five questions in Table 2, with the potential confounders previously listed in the ‘Method’ section entered into the adjusted analysis. Question 7 was included in separate adjusted and unadjusted analyses with the same potential confounders entered into the adjusted model. The reason for carrying out two sets of analyses was that ‘Don’t know’ was a response option for question 7, resulting in considerably more unknown/missing values for this variable (31.4%) than for any of the questions in the first regression analyses. Therefore, rather than reducing the power of the analyses considerably by merging the two, and further reducing the sample size used, these were separated.

Table 3 presents the results of the adjusted and unadjusted binary logistic regression analyses (N=275; 162 former smokers and 113 never smokers) including questions 1-5. In no case did the inclusion of the potential confounders in the analyses alter the interpretation of the association between the survey item responses and smoking status. Former smokers were significantly more likely than never smokers to report that their clients enquire about their smoking status, to agree that ex-smokers make better stop smoking practitioners, and to claim that being asked about their smoking status doesn’t reduce their confidence in advising; whereas never smokers were significantly more likely to report that clients question their ability as practitioners based on their smoking status. Former smokers were more likely to report that they would disclose their smoking status/history immediately if clients asked about it, however this association did not reach significance ($p=0.07$).

Table 4 presents the results of the adjusted and unadjusted binary logistic regression analyses (N=223; 133 former smokers and 90 never smokers) for question 7. Again the interpretation of the unadjusted and adjusted analyses was the same. There was no significant difference in practitioners' self reports of their clients' quit rates over the past year between the former smokers and never smokers groups.

To control for the potential bias repeated testing may introduce all p values less than 0.05 were multiplied by six (the number of predictor variables). All p values remained below 0.05. As some participants were excluded from both regression analyses due to missing values for one or more predictors we also tested whether there was a difference in the number of non-respondents between the former and never smokers groups. There was no significant difference (>0.05) for either set of analyses.

4. Discussion and Conclusion

4.1. Discussion

4.1.1. Principal findings

Around half of the smoking cessation practitioners surveyed claimed to be former smokers. Most practitioners reported that they had been asked about their smoking status, suggesting that this may be important to clients. This was reported significantly more frequently in former smokers; however why this would be the case is not immediately obvious. The majority of practitioners claimed that they disclose their smoking status to clients if they are asked about it, regardless of smoking history. Never smokers were however, significantly more likely to claim that questions from clients about their smoking status reduce their confidence in giving advice. However, caution should be taken when interpreting this result

as never smokers were still less likely to agree that their confidence was reduced than disagree; they were just more likely to agree than ex-smokers. Overall most respondents disagreed that ex-smokers make better stop smoking practitioners, although ex-smokers were more likely to agree than never smokers. Practitioners in general claimed that clients did not question their ability often based on their smoking status, but never smokers reported that they were significantly more likely to experience this than ex-smokers. Both former and never smokers reported drawing on personal experience during consultations, with never smokers primarily drawing on the experiences of others. Finally, neither former nor never smokers self-reported superior client quit rates over the past year.

Action on Smoking and Health (ASH) use data from the 2010 General Lifestyle Survey [22] to report that in 2010 20% of the population of the UK were smokers, and around the same amount were ex-smokers [23]. This would leave 60% of the population as never smokers. According to the result of this survey these figures do not correspond to the numbers of stop smoking practitioners who fall into these categories. This could be because ex-smokers are more motivated to pursue a career in the NHS Stop Smoking Services than never or current smokers and/or that they are more likely to be employed. Therefore, smokers who assume practitioners to have never smoked themselves [12] are incorrect. Vogt et al. found that smokers think that practitioners who are never smokers cannot provide empathy for those who wish to quit smoking [12]. We found that never smokers do draw on the personal experiences of others, despite never having experienced quitting themselves, and so it is unlikely that empathy is lacking completely. Practitioners were also much more likely to be female than male, suggesting that females may be more keen to become practitioners or prone to be employed as practitioners; however it is also impossible to discount that this may

be because females were more likely to complete the survey than males due to uncertainty about the nature of the population of smoking cessation practitioners as a whole.

Findings appear to support those of previous studies, which found that the smoking status of practitioners was important to their potential clients [10, 12-13]. It appears that clients are interested to know about the smoking status of practitioners and are more likely to question their ability if they find that they are never smokers. This could potentially have a negative impact on the confidence of practitioners, and this survey did find that when asked about their smoking status never smokers did feel less confident than ex-smokers, offering support for Nagle et al. [14]. The belief of some ex-smokers that they make more effective practitioners than never smokers could exacerbate this effect. However our finding that quit rates do not differ between practitioners according to smoking status, suggests that residual positive outcome expectations [18] are not coming into play with these stop smoking practitioners.

4.1.2. Study strengths and limitations

This study is an initial step investigating the smoking status of smoking cessation practitioners, clients' reactions to this, the impact this has on practitioners, and practitioner success rates. Not only does it address how practitioners are treated by clients, but the ways that this affects their confidence and behavior. Up until now there has been very little focus on this, despite the fact that anecdotally it appears to come up frequently. This is the first time that a study has investigated the practitioners' point of view within the setting of the UK NHS SSS. It has been carried out using a large-scale survey administered through NHS managers, and appears to give the first estimate of the proportion of former, never and current smokers employed as stop smoking practitioners. The use of regression analyses means that we were

not only able to compare responses between groups but also to control for any potential confounders.

It is important to consider the following potential limitations of the research. Our results suggest that very few practitioners are current smokers. However, 48 participants did not report their smoking status, which could have been due to worries about stigmatisation as a result of being part of one group or another. Current smokers may be the most hesitant when reporting their smoking status in this situation, and therefore the number of current smokers may have been underestimated. It is also worthy of note that for most of those surveyed their main role was as a stop smoking practitioner (71.3%). This is most likely due to the route through which the questionnaire was administered (through stop smoking managers).

Therefore it is unlikely to reflect as accurately the smoking status of health care professionals who only offer smoking cessation support as a small part of their role, for example community pharmacists and practice nurses. It is a possibility that if more clinicians who give smoking cessation support as a small part of their role had taken part, current smokers would have had a larger representation. This needs to be taken into account when generalising findings; as does the fact that this survey was specific only to the NHS SSS and so results should not be extrapolated outside of this organisation. However, the NHS SSS is a model being replicated by a number of countries and lessons that can be drawn from its experience are therefore of interest. We cannot tell how high the response rate to the survey was or whether the sample studied here are representative of practitioners in general as there is at present no evidence of the overall number of stop smoking practitioners working within the NHS.

It should also be taken into account that in some cases practitioners were asked about clients' reactions rather than clients being asked for their opinions or observing the behavior of clients in clinics, and as a result responses may be open to potential bias. In addition, the quit rate data collected in this survey was also based on practitioner self-report, and therefore may not be accurate. Nevertheless there is no reason to believe that never smokers or former smokers are more likely to misreport their quit rates, particularly as questions pertaining to smoking status were placed later in the survey than the question regarding quit rates. Therefore, the magnitude of the difference between quit rates is unlikely to be inaccurate. However, reported quit rates in Table 1 should not be used as accurate indicators of NHS SSS practitioners' success rates, and further research investigating objective quit rates in association with smoking status would help to confirm the findings from this self-report data.

Finally, all participants did not respond to every survey item. However, non responders would have to provide responses differentially opposite to our findings to negate what we found, and there is no reason to believe that this would be the case. Nonetheless we minimised the potential for non response bias by separating the analyses into two parts, maximising the sample size. We also found that the proportions of participants with missing values were the same in the never smokers and former smokers groups.

4.2. *Practice Implications*

Future research, providing an estimate of the number of smokers who may not be seeking support to quit due to preconceptions about practitioner smoking status, could be used to decide whether informing smokers about the number of former smokers working as practitioners, and the similarity of their quit rates to never smokers, could be beneficial in drawing more quitters into the stop smoking service. As the chances of quitting have been

found to increase by around four times when smokers seek support [24] this could lead to an increase in the number of people who successfully quit smoking. However care should be taken in doing this, as putting emphasis on the personal characteristics of advisors may de-emphasise the importance of their professional training and increase the perceived divide between never and former smokers as practitioners. It may be preferable to highlight that the service puts great importance on compassion for its clients and the experience that practitioners draw upon whether they have smoked themselves or not.

Despite our suggestion that an objective source of quit rates should be used to compare quit rates between practitioners, to offer support for the presented findings, this should only be investigated in the context of how quit rates in any group can be improved. For example by looking at whether confidence acts as a mediator, in which case quit rates could be improved by increasing confidence. Even if one group does outperform another it would never be practical or ethical to limit the employment of stop smoking practitioners on the basis of smoking status.

If quit rates are the same between groups, as suggested by the findings of this research, it could still be beneficial to address any issues relating to lack of confidence in advising. In light of the evidence that never smokers feel significantly less confident about giving advice than former smokers when questioned about their smoking status, practitioners who have never smoked should probably be given additional training focusing on increasing their confidence in dealing with clients and offering support. Zimmerman et al. [25] and Balmford & Borland [26] highlight that many smokers feel ambivalence when embarking on a smoking cessation attempt, through fear that they will not be able to succeed in the first instance, and that the lifestyle change will not be for the better. It is potentially easier for an ex-smoker to

deflect some of these concerns, as they themselves are proof that it can be done and that the change has been a positive one for them. It may potentially be more difficult for a never smoker to do this, and this is where training in communication skills could be helpful. This type of training could not only help to increase the confidence and well-being of the practitioner but also the confidence of the client in their practitioner, which may in turn help to strengthen the client-practitioner relationship, and keep the client engaged with the service.

4.3. Conclusion

Past evidence suggests that smokers believe that smoking cessation practitioners are primarily never smokers and this discourages them from seeking support. However, at least half of the practitioners in the NHS SSS are ex-smokers. Many practitioners are questioned about their smoking status by their clients, and in never smokers this is significantly more likely to affect their confidence than in former smokers. Nevertheless, former smokers and never smokers report the same quit rates, suggesting that this does not influence their success as a practitioner. Despite the apparent similarity of success rates it could still be beneficial to address the reduced confidence of never smokers, by improving training in areas such as dealing with client ambivalence. The doubts of potential NHS SSS clients could perhaps be addressed by informing them that that neither former or never smokers are likely to have superior quit rates; that not all practitioners are never smokers; and that even those that are draw on the experience of smokers to provide empathy for their clients. This in turn could encourage more smokers to quit using the NHS SSS.

References

- [1] Baker R, Streatfield J. What type of general practice do patients prefer? Exploration of practice characteristics influencing patient satisfaction. *Br J Gen Pract* 1995; 45:654-9.
- [2] Barnsley J, Williams AP, Cockerill R, Tanner J. Physician characteristics and the physician-patient relationship. Impact of sex, year of graduation, and specialty. *Can Fam Physician* 1999; 45:935-42.
- [3] Britt H, Bhasale A, Miles DA, Meza A, Sayer GP, Angelis M. The sex of the general practitioner: a comparison of characteristics, patients, and medical conditions managed. *Med Care* 1996; 34:403-15.
- [4] Cooper-Patrick L, Gallo JJ, Gonzales JJ, Vu HT, Powe NR, Nelson C, Ford DE. Race, gender, and partnership in the patient-physician relationship. *JAMA* 1999; 282:583-9.
- [5] Garcia JA, Paterniti DA, Romano PS, Kravitz RL. Patient preferences for physician characteristics in university-based primary care clinics. *Ethn Dis* 2003; 13:259-67.
- [6] Hersoug AG, Hoglend P, Monsen JT, Havik OE. Quality of working alliance in psychotherapy. Therapist variables and patient/therapist similarities as predictors. *J Psychother Pract Res* 2001; 10:205-16.
- [7] Blasi ZD, Harkness E, Ernst E, Georgiou A, Kleijnen J. Influence of context effects on health outcomes: a systematic review. *Lancet* 2001; 357:757-62.

- [8] Harris D, Lichtenstein E. Contribution of nonspecific social variables to a successful behavioural treatment of smoking. Presentation at the meeting of the Western Psychological Association 1971; San Francisco:USA.
- [9] Lichtenstein E, Harris DE, Birchler GR, Wahl JM, Schmahl DP. Comparison of rapid smoking, warm, smoky air, and attention placebo in the modification of smoking behaviour. *J Consult Clin Psychol* 1973; 40:92-8.
- [10] Lichtenstein E, Ransom CC, Brown RA. Effects of counsellor smoking status, experience level, and treatment modality on the credibility of smoking cessation programs. *J Drug Educ* 1981; 11:361-7.
- [11] Schmahl DP, Lichtenstein E, Harris DE. Successful treatment of habitual smokers with warm smoky air and rapid smoking. *J Consult Clin Psychol* 1972; 38:105-11.
- [12] Vogt F, Hall S, Marteau TM. Examining why smokers do not want behavioral support with stopping smoking. *Patient Educ Counsel* 2010; 79:160-6.
- [13] Kishchuk N, Tremblay M, Lapierre J, Heneman B, O'Loughlin J. Qualitative investigation of young smokers' and ex-smokers' views on smoking cessation methods. *Nicotine Tob Res* 2004; 6:491-500.
- [14] Nagle A, Schofield M, Redman S. Australian nurses' smoking behaviour, knowledge and attitude towards providing smoking cessation care to their patients. *Health Promot Int* 1999; 14:133-144.

[15] Slama K, Karsenty S, Hirsch A. French general practitioners' attitudes and reported practices in relation to their participation and effectiveness in a minimal smoking cessation program for patients. *Addiction* 1999; 94:125-32.

[16] Ulbricht S, Meyer C, Schumann A, Rumpf HJ, Hapke U, John U. Provision of smoking cessation counseling by general practitioners assisted by training and screening procedure. *Patient Educ Counsel* 2006; 63:232-8.

[17] Ulbricht S, Baumeister SE, Meyer C, Schmidt CO, Schumann A, Rumpf H, John U. Does the smoking status of general practitioners affect the efficacy of smoking cessation counselling? *Patient Educ Counsel* 2009; 74:23-8.

[18] Dijkstra A, Borland R. Residual Outcome Expectations and Relapse in Ex-Smokers. *Health Psychol* 2003; 22:340-6.

[19] McDermott MS, West R, Brose LS, McEwen A. Self-reported practices, attitudes and levels of training of practitioners in the English NHS Stop Smoking Services. *Psychol Addict Behav*, 2012; 37:498-506.

[20] Suchower LJ, Copenhaver MD. Using Logistic Regression to Test for Interaction in the Presence of Zero Cells. Presentation at the NorthEast SAS Users Group (NESUG), 10th Annual Conference 1997; Baltimore, Maryland:USA.

[21] Rothman K J, Greenland S. Modern Epidemiology, Second Edition. USA:Lippincott – Raven, 1998.

[22] Office for National Statistics. General Lifestyle Survey, 2010; 2012. Retrieved from <http://www.ons.gov.uk/ons/rel/ghs/general-lifestyle-survey/2010/index.html> [Accessed 23/07/2012].

[23] ASH. Smoking statistics: who smokes and how much 2012. Retrieved from http://ash.org.uk/files/documents/ASH_106.pdf [Accessed 23/07/2012].

[24] West R. How best to motivate and help smokers to stop 2010. Retrieved from <http://www.rjwest.co.uk/slides.php>. [Accessed 23/07/2012].

[25] Zimmerman GL, Olsen CG, Bosworth MF. A ‘Stages of Change’ approach to helping patients change behaviour. Am Fam Phys 2000; 61:1409-16.

[26] Balmford J, Borland R. What does it mean to want to quit? Drug Alcohol Rev 2008; 27: 21-7.

Legends

Table 1: Participant characteristics

Table 2: Participant responses to survey items analysed

Table 3: Odds ratios and 95% confidence intervals for unadjusted and adjusted binary logistic regression analyses (including questions 1-5), comparing responses between never and former smokers

Table 4: Odds ratios and 95% confidence intervals for unadjusted and adjusted binary logistic regression analyses (including question 7), comparing responses between never and former smokers

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Conflicts of Interest

NL-H has received hospitality and consultancy payments from manufacturers of smoking cessation products, and smoking cessation products for use in an RCT from GlaxoSmithKline. RB has accepted hospitality from a manufacturer of smoking cessation products. AMc has received travel funding, honorariums and consultancy payments from manufacturers of smoking cessation products (Pfizer Ltd, Novartis UK and GSK Consumer Healthcare Ltd). He also receives payment for providing training to smoking cessation specialists; receives royalties from books on smoking cessation and has a share in a patent of a nicotine delivery device. DL has received hospitality from manufacturers of smoking cessation products (Pfizer Ltd), and received smoking cessation products for use in an RCT

from Johnson & Johnson Ltd. She has received expenses and consultancy fees from the NHS and Higher Education Institutions for teaching around smoking cessation, and has received grant funding from UKCTCS and the NIHR- School for Primary Care Research for smoking cessation related research. MSMc has no declarations of interest.

Participant characteristic	All participants (N=484)¹	Never smokers (N=188)	Former smokers (N=247)
Age in years (median, IQR)	45, 17	45, 16	46, 18
Female gender	84%	88%	82%
Length of service with NHS SSS in years (median, IQR)	4, 5	4, 6	4, 5
Smoking cessation practitioner is main job role	71%	69%	73%

Table 1: Participant characteristics

¹ *Data on all characteristics was not available for all participants.*

Table 2: Participant responses to survey items analysed

Survey item	Response	All participants (N=484) ¹ N (%)	Never smokers (N=188) N (%)	Former smokers (N=247) N (%)
1. Do your clients ask you about your smoking status/ history?	No reply	24 (5.0)	8 (4.3)	1 (0.4)
	Never	4 (0.8)	4 (2.1)	0 (0.0)
	Rarely	18 (3.7)	10 (5.3)	5 (2.0)
	Sometimes	188 (38.8)	80 (42.6)	93 (37.7)
	Very often	163 (33.7)	55 (29.3)	98 (39.7)
	Always	87 (18.0)	31 (16.5)	50 (20.2)
2. Do you disclose your smoking status/ history if clients ask about it?	No reply	44 (9.1)	13 (6.9)	10 (4.1)
	No, I do not disclose it	21 (4.3)	12 (6.4)	6 (2.4)
	Yes, but I wait until treatment is complete	36 (7.4)	18 (9.6)	15 (6.1)
	Yes, I disclose it immediately	383 (79.1)	145 (77.1)	216 (87.5)
3. Indicate how much you agree with the following statement: If a client asks about my smoking status it reduces my confidence in advising them.	No reply	23 (4.8)	8 (4.3)	0 (0.0)
	Strongly disagree	258 (53.3)	81 (43.1)	163 (66.0)
	Disagree	149 (30.8)	69 (36.7)	67 (27.1)
	Neither agree nor disagree	47 (9.7)	23 (12.2)	17 (6.9)
	Agree	7 (1.4)	7 (3.7)	0 (0.0)
	Strongly agree	0 (0.0)	0 (0.0)	0 (0.0)
4. Indicate how much you agree with the following statement: Ex-smokers make better stop-smoking practitioners.	No reply	25 (5.2)	8 (4.3)	1 (0.4)
	Strongly disagree	126 (26.0)	68 (36.2)	47 (19.0)
	Disagree	132 (27.3)	63 (33.5)	62 (25.1)
	Neither agree nor disagree	151 (31.2)	40 (21.3)	98 (39.7)
	Agree	50 (10.3)	9 (4.8)	39 (15.8)
	Strongly agree	0 (0.0)	0 (0.0)	0 (0.0)
5. Do your clients ever question your ability as a practitioner based on your smoking status?	No reply	35 (7.2)	12 (6.4)	6 (2.4)
	Never	232 (47.9)	68 (36.2)	151 (61.1)
	Rarely	110 (22.7)	58 (30.9)	41 (16.6)
	Sometimes	88 (18.2)	46 (24.5)	34 (13.8)
	Very often	15 (3.1)	4 (2.1)	11 (4.5)
	Always	4 (0.8)	0 (0.0)	4 (1.6)
6. What kind of personal experience of smoking, if any, do you draw on in a consultation?	No reply	45 (9.3)	13 (6.9)	12 (4.9)
	Your own as a smoker	19 (3.9)	0 (0.0)	19 (7.7)
	Others as smokers	197 (40.7)	141 (75.0)	43 (17.4)
	Both your own and others as smokers	177 (36.6)	12 (6.4)	154 (62.4)
	Neither your own or others	46 (9.5)	22 (11.7)	19 (7.7)
7. [Of those smokers who have set a quit date with you in the past 12 months] What percentage of these were CO verified 4-week quitters?	No reply	55 (11.4)	21 (11.2)	23 (9.3)
	Don't know	97 (20.0)	37 (19.7)	51 (20.6)
	0-10%	9 (1.9)	8 (4.3)	1 (0.4)
	11-20%	11 (2.3)	4 (2.1)	6 (2.4)
	21-30%	11 (2.3)	6 (3.2)	5 (2.0)
	31-40%	27 (5.6)	10 (5.3)	12 (4.9)
	41-50%	50 (10.3)	17 (9.0)	31 (12.6)
	51-60%	57 (11.8)	20 (10.6)	33 (13.4)
	>60%	167 (34.5)	65 (34.6)	85 (34.4)

¹This column is not the sum of the 'Never smokers' and 'Former smokers' columns as it includes participants who responded: No reply (N=26), Prefer not to answer (N=22) and Current smoker (N=1) to the smoking status question

Table 3: Odds ratios and 95% confidence intervals for unadjusted and adjusted binary logistic regression analyses (including questions 1-5), comparing responses between never and former smokers

Survey Item	Unadjusted analyses		Adjusted analyses ¹	
	OR	95% CI	OR	95% CI
1. Do your clients ask you about your smoking status/ history?	1.66*	1.17-2.37	1.70*	1.18-2.45
2. Do you disclose your smoking status/ history if clients ask about it?	1.73	0.96-3.12	1.76	0.96-3.21
3. Indicate how much you agree with the following statement: If a client asks about my smoking status it reduces my confidence in advising them.	0.51*	0.33-0.78	0.47*	0.30-0.74
4. Indicate how much you agree with the following statement: Ex-smokers make better stop-smoking practitioners.	2.13*	1.58-2.86	2.31*	1.67-3.17
5. Do your clients ever question your ability as a practitioner based on your smoking status?	0.64*	0.47-0.87	0.61*	0.44-0.85

¹Analysis adjusted for the following variables: age, gender, number of days of 'off the job' training received when started working for the NHS SSS, number of days observing experienced practitioner after training, frequency of 'off the job' update training, frequency of clinical supervision, confidence about own knowledge and skills in tobacco control, confidence about own knowledge and skills in smoking cessation, length of service with NHS SSS, perceived importance of service level treatment protocols to the delivery of smoking cessation interventions, job satisfaction in current role, and smoking cessation support as main job role or not

* $p < 0.01$

Table 4: Odds ratios and 95% confidence intervals for unadjusted and adjusted binary logistic

Survey Item	Unadjusted analyses		Adjusted analyses ¹	
	OR	95% CI	OR	95% CI
7. [Of those smokers who have set a quit date with you in the past 12 months] What percentage of these were CO verified 4-week quitters?	1.09	0.92-1.29	1.09	0.92-1.30

regression analyses (including question 7), comparing responses between never and former smokers

¹Analysis adjusted for the following variables: age, gender, number of days of 'off the job' training received when started working for the NHS SSS, number of days observing experienced practitioner after training, frequency of 'off the job' update training, frequency of clinical supervision, confidence about own knowledge and skills in tobacco control, confidence about own knowledge and skills in smoking cessation, length of service with NHS SSS, perceived importance of service level treatment protocols to the delivery of smoking cessation interventions, job satisfaction in current role, and smoking cessation support as main job role or not