

A survey of smoking cessation training within UK Pharmacy education

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Abstract

Introduction: Tobacco smoking is a significant public health problem, and remains the leading cause of preventable, premature death in the UK. In order to reduce the burden of smoking in the UK, all healthcare professionals should be able to advise and assist smokers to quit. Adequately trained pharmacists can play a key role in providing smoking cessation support and advice. The aim was to identify the extent of smoking cessation teaching and examination in UK pharmacy schools.

Methods: A short survey of smoking cessation was sent to each Programme Director for all UK pharmacy schools (n=29).

Results: The survey achieved a response rate of 72%. All schools dedicated time teaching smoking cessation interventions, with 76% spending more than three hours, and 90% examining students on some aspect of smoking cessation. All schools taught about Nicotine Replacement Therapy (NRT) and the role of behavioural support. At least 90% of schools taught about the role of the stop smoking services; and opportunistic brief interventions, e.g. Very Brief Advice (VBA). Only 14% covered practical delivery in clinical settings.

Conclusions: UK pharmacy schools are teaching and examining students on a wide range of smoking cessation interventions, including VBA. However, there was a lack of training reported on the management of mental health patients who smoke, and practical skills training. All schools should do more to ensure they are providing practical skills training to enable students to be adequately prepared for delivering smoking cessation support to all smokers, including vulnerable populations.

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Introduction

Tobacco smoking is a significant public health problem, and remains the leading cause of preventable, premature death in the UK.¹ Approximately 1 in 5 UK adults are still smoking.² The risk of smoking-related morbidity and mortality is substantially reduced when quitting smoking.³ Intervening to help all smokers quit thus has major potential to improve current and future health of all patients who use the National Health Service (NHS) services (a publicly funded national healthcare system in the United Kingdom).

Smoking cessation is a priority area for health promotion. Smoking cessation interventions are amongst the most clinically and cost effective interventions available in healthcare.^{4,5} It is known that opportunistic brief advice from a health professional can be one of the most important triggers for a quit attempt⁶. Brief opportunistic interventions such as very brief advice (VBA)⁷ was developed to encourage smokers to take up a supported quit attempt. VBA consists of the three A's: Ask (and record smoking status); Advise (on the best way of quitting); Act (on patient response). VBA can be delivered by any healthcare professional who interacts with a smoker, and was designed to encourage smokers to take up a supported quit attempt, with a range of treatment options and intensive behavioural support. The referral of smokers to effective, evidence-based stop smoking services is a vital part of ensuring that these individuals access the most effective method of stopping smoking.^{8,9}

Every encounter between a healthcare professional (HCP) and a patient who smokes is an opportunity to provide tobacco cessation advice, ideally by delivering detailed advice and support but, at the very least, to spend the less than 30 seconds necessary to deliver VBA. In order to reduce the burden of smoking in the UK, all healthcare professionals should be able to advise and assist smokers to quit.¹⁰ The Royal College of Physicians recently recommended that training in smoking cessation should be mandatory for all undergraduate and postgraduate healthcare professional training curricula, including pharmacy.¹¹ Community pharmacy is increasingly recognised by the government as an effective mean for delivering public health initiatives. Pharmacists are respected healthcare professionals, and are often much more accessible and potentially more cost-effective than general practitioners.¹² Pharmacists are ideally placed to support smokers wanting to quit. In the UK there are guidelines available for pharmacists about how to help smokers quit smoking.¹³ Community pharmacists are expected to provide advice on healthy lifestyles (including quitting smoking); to direct

smokers to appropriate support, advice or treatment; and to provide community-based smoking cessation treatment as part of the local NHS stop smoking service¹³. There have been several studies showing that appropriately trained community pharmacists can make a significant contribution to smoking cessation.^{14 15}

There are currently no studies of smoking cessation training in UK pharmacy school curricula. It is important to assess what is being covered within the pharmacy school curricula to identify potential gaps in training. The present study aimed to identify which smoking cessation interventions are being taught, specific content areas assessed and the total number of hours dedicated to smoking cessation teaching in UK pharmacy schools.

Method

Sample and recruitment

All UK Pharmacy schools with an accredited undergraduate programme (n=29) were invited to take part. A suitable staff member (e.g. Programme Director) from each Pharmacy school was identified, either personally (by CA), or via accessing the School's website to determine the Programme lead. The staff member was responsible for the curriculum content and not necessarily responsible for teaching tobacco-related content. An email was sent containing an explanation of the study and a link to the survey. For non-responders, alternative staff members were identified from the schools website. Two reminders were sent.

Materials: Questionnaire

To identify the curricular coverage of smoking cessation in undergraduate pharmacy training programmes, we used a short questionnaire that was developed for the Royal College of Physicians to survey the curriculum content of UK Medical schools in relation to topics considered essential for medical practitioners to deliver evidence-based smoking cessation advice to their patients who smoked¹¹. To encourage a higher response rate, the survey included only three compulsory questions and one follow-up question. Question 1 asked "*Relating to smoking cessation interventions, does the content of your pharmacy school teaching include any of the following*": Cost and clinical effectiveness; Opportunistic brief interventions e.g. very brief advice/the 3A's: ask, advise, act; The role of behavioural support; The role of the stop smoking services; Nicotine Replacement Therapy; Varenicline; Bupropion;

E-cigarettes; Practical delivery in class room settings (e.g. role play); Practical delivery in simulated settings (e.g. with simulated patients); Practical delivery in clinical settings (e.g. observed a stop smoking practitioner in practice); Management of mental health patients who smoke; Management of pregnant smokers). Respondents could tick as many options as necessary. Question 2 asked: “*The number of hours of teaching on smoking cessation interventions in your pharmacy school curriculum are*”: <1 hour; 1-3 hours; 3-5 hours; >5 hours; do not know. Question 3 asked: “*Are the students examined on smoking cessation interventions as part of the course?*” yes; no; do not know. If respondents answered yes to question 3 they were asked which topics (from question 1) the students were examined on.

Procedure and analysis

The survey tool ‘SurveyMonkey’ was used to host the survey (www.surveymonkey.com). A personalised email containing a link to the survey was sent to all identified respondents, with two follow up reminder emails sent to non-responders after 10 days each time. Consent to take part in the survey was implied by completion and submission of the questionnaire. After closure of the survey, all data were imported into excel. Statistical analyses involved computation of simple summary statistics to characterise the survey responses. Data were summarised using descriptive statistics (i.e. percentages (n) or mean, as appropriate.

Ethical approval was not sought as the study was deemed to be an evaluation conducted solely to define and assess current smoking cessation training within pharmacy curricula in the UK.

Results

In total, 21 pharmacy schools responded to the survey, giving a response rate of 72%. Of the 13 different interventions asked about in the survey, two were taught by all of the schools (NRT and The role of behavioural support), followed by The role of the Stop Smoking Services (n=20, 95%); Opportunistic brief interventions (n=19, 90%); Varenicline, and Practical delivery in class rooms, e.g. role play (n=16, 76%); E-cigarettes (n= 15, 71%); Bupropion (n=14, 67%); Practical delivery in simulated settings and Cost and clinical effectiveness (n=13, 62%). Half taught about the management of pregnant smokers (n=11, 52%), and only three (14%) taught about the management of mental health patients who smoke, and practical delivery in clinical settings. See Figure 1.

INSERT FIGURE I

The majority of the schools allocated 3-5 hours or more than 5 hours (n=16; 76%) teaching about smoking cessation. Nearly all of the schools reported examining the students on smoking cessation interventions (n=19; 90%).

NRT was the topic students were most frequently examined on (n=20; 95%), followed by the role of behavioural support (n=17; 81%), opportunistic brief interventions, and the role of the stop smoking services (n=14; 67%). Half examined the students on practical delivery in simulated sessions (n=11, 52%); cost and clinical effectiveness; and varenicline (n=10, 48%). Less than half of the pharmacy schools examined the students on bupropion or practical delivery in class room settings (n=9; 45%), management of pregnant smokers (n=8; 38%), E-cigarettes (n=7; 33%), management of mental health patients (n=2; 9%), and practical delivery in clinical settings (n=1; 5%).

Discussion

This is the first nationwide survey of smoking cessation interventions taught in undergraduate pharmacy curricula in the UK. The survey achieved a good response rate and the results demonstrate that all schools dedicate time teaching smoking cessation interventions, with 76% spending more than three hours, and 90% examining students on some aspect of smoking cessation. However, the number of different interventions taught varied by school.

Our survey found that of the 13 topics on the survey, 11 were taught by at least half of the schools. It is very encouraging that all schools are teaching about NRT and the role of behavioural support; and at least 90% are teaching about the role of the stop smoking services, and opportunistic brief interventions, e.g. VBA. Examination of the topics was lower, with only five topics examined by at least half of the schools. Very few schools covered the practical delivery in clinical settings. Similar previous surveys of UK medical,^{11 16} nursing,¹⁷ and optometry¹⁸ schools have also shown there is a tendency to teach about the theoretical aspects of smoking cessation, but less so on practical skills training (e.g. practical skills training in clinical or simulated settings). Studies within pharmacy schools outside of the UK, e.g. US;¹⁹ Malaysia²⁰ and the Middle East²¹ have also found a tendency to teach about theory and

principles of addiction, with less attention on delivery of tobacco cessation interventions, and very few schools using role play or practical skills as part of assessment.

The lack of practical skills training in clinical settings is a concern because pharmacy students may not be adequately prepared to deliver smoking cessation interventions once they are qualified. A lack of practical skills training among nurses has been shown to negatively impact how they deliver smoking cessation advice to patients.²² Greenhalgh and colleagues²³ recent review of pharmacist led smoking cessation support found strong evidence that a lack of training is one of the major barriers to delivering smoking cessation support, but those who have been adequately trained are more likely to deliver it, spend longer on it and adhere to evidence-based standards than those who receive no training.

Another concern is the significant lack of teaching about smoking cessation in mental health patients. Cessation causes a significant reduction in the metabolism of many psychiatric medications which means their doses should be reduced.²⁴ The Royal College of Psychiatrists produced a guide on smoking and mental disorders²⁵ which is endorsed by the Royal Pharmaceutical Society, and states that pharmacists have a key role in improving access to smoking cessation and reduction interventions for smokers with a mental disorder as well as facilitating appropriate changes of medication doses. A reduction in psychotropic medication following smoking cessation would save the NHS £40m a year,²⁶ as well as potentially reducing the incidence of adverse drug events. Given that previous surveys of medical schools^{11 16} have found a lack of teaching about the management of patients with mental health conditions who smoke, it is even more important that pharmacists, as medication experts, receive this training.

There was also a lack of teaching about the management of pregnant patients who smoke, with only half of the pharmacy schools teaching about this. Cigarette smoking is the most important preventable cause of adverse pregnancy outcomes²⁷ however it has been identified that most health professionals receive limited training in treating pregnant smokers.¹¹ Midwives have also reported a lack of training on how to address smoking in pregnancy.²⁸ It is essential that health care professionals who have contact with pregnant smokers, are appropriately trained to offer smoking cessation support, and this must also include community pharmacists.

Although pharmacy schools generally recognise the importance of teaching smoking cessation, several studies have suggested there are a number of barriers to enhancing tobacco training. Studies of pharmacy schools outside of the UK^{19 21} have found the main barriers are lack of time within an

already crowded curriculum; lack of staff expertise to teach about tobacco; and perceived lack of priority of tobacco related content. Within the UK, perceived barriers for delivery smoking cessation training in medicine,¹⁶ nursing¹⁷ and optometry¹⁸ also include lack of time, and lack of staff knowledge. Pharmacy schools in the UK will therefore need to work on circumventing these barriers.

Although our survey achieved a good response rate of 72%, there is the potential for selection bias that may have impacted the results. It is possible that schools responding to the survey were more likely to be engaged in smoking cessation and allocate more hours of instruction to tobacco-related content. There are also several other limitations. The results may be subject to recall bias, or social desirability, whereby participants over-reported the extent of smoking cessation training. It is also possible that the person completing the survey was not the most suitable and they may not have been knowledgeable or fully aware about all parts of the teaching being delivered in their school. Additionally the survey does not take into account the quality or delivery of teaching or the resources used, and this is likely to vary between schools.

Conclusions

Smoking remains a public health priority¹ and the potential for community pharmacists to play a key role in providing smoking cessation support has been recognised. However, it is important that they are adequately trained and prepared to deliver evidence-based smoking cessation interventions. Our survey found that UK pharmacy schools are teaching and examining students on a wide range of smoking cessation interventions, including VBA. However, all schools should do more to ensure they are providing practical skills training to enable students to be adequately prepared for delivering smoking cessation support. Furthermore, there is very little attention given to the management of pregnant smokers and mental health patients who smoke. It is essential that pharmacists are also well equipped to also provide smoking cessation support to these vulnerable populations. Future studies may want to consider conducting a national survey of community pharmacists to identify and prioritise training needs (e.g. who to train, and in what and where, and how to deliver training). Other studies could explore newly qualified pharmacists about their comfort level with providing smoking cessation interventions.

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