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Short Communication

A pilot study of the feasibility of delivering a brief smoking cessation intervention in community optometric practice

J.G.Lawrenson MSc PhD¹, C.A. Roberts BSc (Hons) MBA², L. Offord BSc (Hons)³

1. Centre for Public Health Research, School of Health Sciences, City University London UK
2. Clinical Adviser, Shropshire and Telford and Wrekin Clinical Commissioning Groups, Shrewsbury and Telford UK
3. Public Health Programme Lead, Shropshire Council, Shrewsbury UK

Corresponding Author:

Professor JG Lawrenson

Division of Optometry and Visual Science

City University London

Northampton Square

London

EC1V 0HB

Tel: +44 (0) 2070404310

Email: j.g.lawrenson@city.ac.uk

Introduction

In addition to the well documented harmful effects of smoking on the cardiovascular and respiratory systems, there is increasing evidence that smoking is causally associated with common sight-threatening eye diseases such as age-related macular degeneration (AMD) and cataract. AMD is the most common cause of blindness in the UK, accounting for approximately 59% of severe sight impairment certifications.¹ Based on a European cross-sectional study, it has been estimated that more than a quarter of all cases of advanced AMD are attributable to current or past exposure to cigarette smoke.² Despite evidence for causality, there is a distinct lack of public awareness of the harm of smoking to the eye³ and it has been suggested that an intervention centred on eye health could provide a powerful stimulus to quit.^{4,5,6}

This study assesses the feasibility of delivering a smoking cessation intervention by community optometrists. Optometrists are well placed to offer smoking cessation advice to 'at risk' groups, since they have a significant amount of contact with patients with established AMD and those at high risk of developing the disease. Furthermore, by utilising this professional group, an important public health message can be delivered to a large proportion of the population who are 'in health' and therefore not in regular contact with other healthcare professionals. Significantly, optometrists maintain contemporaneous clinical records on all of their patients and therefore have a robust mechanism for recording smoking status, an individual's willingness to quit and details of any previous smoking cessation interventions.

The aims of the study were two-fold: firstly, to explore the practices and attitudes of a representative sample of community optometrists regarding smoking and eye health; and secondly to evaluate the impact of an educational intervention, which was designed to facilitate referral to specialist stop smoking services

For the first part of the study all community optometrists on the membership database of the Shropshire Local Optical Committee (LOC) were invited by email to participate in a previously validated online survey.⁷ The LOC database included the majority of optometrists who were practising within Shropshire, Telford and Wrekin. The survey was hosted by Survey Monkey (a US provider of online surveys), and consisted of 10 forced choice questions covering:

- Knowledge of the link between smoking and AMD
- Frequency of taking a smoking history
- Barriers to delivering advice on smoking cessation
- Knowledge of local stop smoking services

The survey was open for 4 weeks from December 2013 to January 2014. No incentives were offered, although two email reminders were sent to encourage participation. A total of 26/81 (32%) optometrists responded.

Survey responses were exported to an Excel spreadsheet for descriptive analysis and testing for statistical significance was performed with Medcalc® statistical software.

Current practice of optometrists in relation to smoking cessation

Approximately 77% of respondents were aware of the link between smoking and AMD. With regard to smoking cessation, 4% of optometrists reported that they regularly took a smoking history and approximately 12% provided regular advice on stopping smoking. Significantly, 88% of respondents were unaware of the exact mechanism for referring patients to local specialist services. The most commonly reported barriers to raising awareness of the link between smoking and eye disease were the perception of how it could affect the patient: practitioner relationship (39%), being unsure as to how to raise the issue (31%) or time constraints (31%).

These results are consistent with previous studies in the UK^{7,8} and Canada,⁹ which similarly reported that community optometrists do not routinely take a smoking history nor provide advice on smoking cessation or initiate referral to specialist services. However, these researchers found that many optometrists wished to improve their knowledge in this area.

Impact of an educational intervention on the delivery of a brief smoking cessation intervention by optometrists

Following the collection of baseline data, all participating optometrists were invited to an evening educational event on 26th March 2014 comprising a series of lectures co-ordinated by Shropshire Council's public health team. Lectures included: 'Targeting modifiable risk factors in AMD' and the concept of 'Making Every Contact Count'. An information pack was also supplied containing a fact sheet on 'Smoking and Eye Health' produced by Action on Smoking and Health (ASH),¹⁰ a link to an online training module on how brief advice can be delivered¹¹ and a supply of locally developed posters and patient information leaflets for use in their practices. Two months after the launch event, the online survey was repeated. The response rate to the follow-up survey was 45% (36/81).

Following the educational intervention there was an increase in knowledge of the link between AMD and smoking from 77 to 95%, respondents were also more likely to take a smoking history (increased from 4% pre-intervention to 55%) and provide advice to their patients on stopping smoking (increased from 12% to 45%) (Figure 1). Despite the focus of the intervention on the availability of specialist smoking cessation services, 61% of respondents were unaware of the process for referring to the local stop smoking service.

Conclusions and directions for future work

This study found that despite having a high level of awareness of the link between smoking and AMD, many optometrists failed to regularly take a smoking history and make patients aware of the harm that smoking can do to the eyes. A short educational initiative was successful in enabling a greater proportion of community optometrists to take a smoking history and offer advice on stopping smoking. One limitation of the study is the small sample size and the possibility of selection bias, since it is possible that those responding to the survey had a particular interest in AMD and/or health promotion. However, given the low levels of involvement in providing smoking cessation advice within this sample of community optometrists, it is clear that ongoing barriers to its universal adoption persist. Future work will explore these barriers in more detail and we also plan to support the profession through the development and evaluation of specific training and guidance in smoking prevention and cessation.

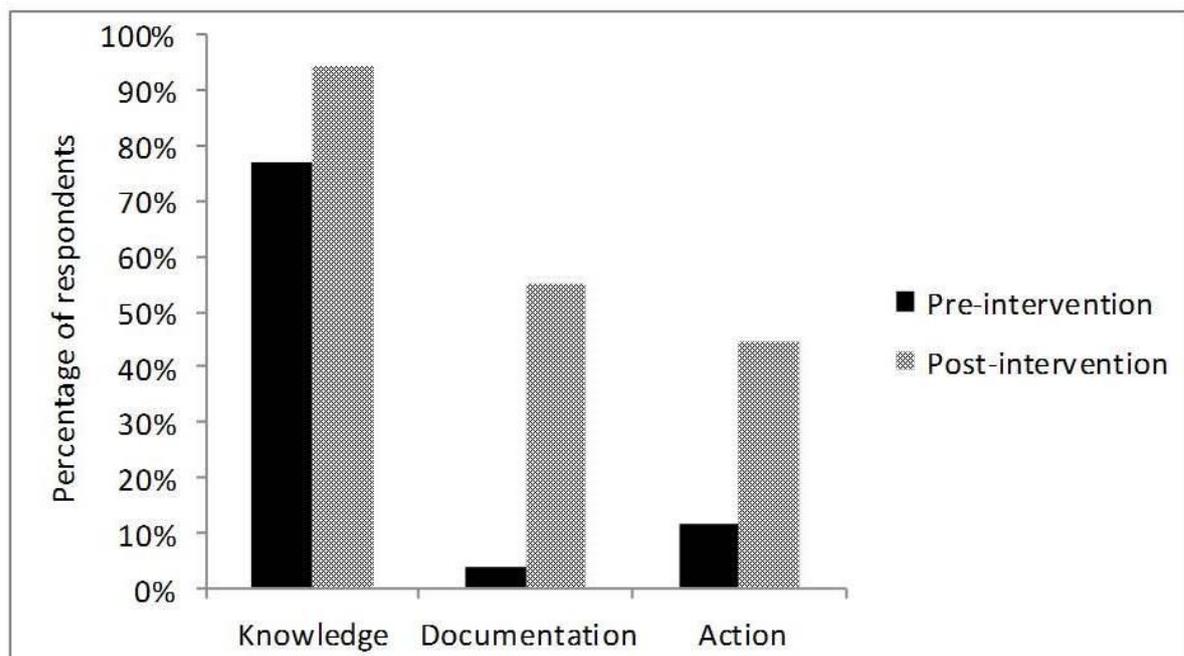


Figure 1. Changes from pre to post intervention of the link between smoking and AMD (knowledge), regularly taking a smoking history (documentation) and provision of advice (action) to patients on stopping smoking. Differences in proportions for 'documentation' and 'action' are statistically significant ($P < 0.01$, Fishers Exact test).

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Ethical approval

Ethical approval for the study was granted by the City University School of Research and Ethics Committee and the research was carried out in compliance with the Declaration of Helsinki.

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Competing interests

None declared

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