Summary of: The impact of fluoride application training: survey of trained dental nurses from King's College Hospital NHS Trust

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FULL PAPER DETAILS

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Objectives To explore the perceived benefits of a fluoride varnish training scheme, subsequent use of extended skills and any barriers that exist, in order to inform future training and practice. **Method** Questionnaire survey of the first four cohorts of fluoride varnish training at one London dental hospital. **Results** Thirty-six (62%) nurses responded to the survey, 89% of whom were using fluoride varnishing. 'Personal development', 'NHS initiatives' and 'having a supportive principal' were key drivers for course attendance. Over 2,500 fluoride application treatments were carried out (range = 0–630) with six nurses providing 71% of the treatments. Twenty nurses (56%) worked in the salaried primary dental care service and provided 69% of treatments, the remaining 31% of treatments were provided by the 44% (n = 16) of nurses in general dental practice. Barriers were 'systems-related' and 'professional', including lack of community programmes, consultant oversight, referrals, materials and concerns regarding insurance and consent. The majority felt that the course contributed to their professional career (97%), and expressed their confidence in conducting fluoride application (80%). **Conclusion** The findings highlight the potential for using extended roles to deliver evidence-based prevention and variation in their use; however, there is some evidence that organisational and professional barriers exist.

EDITOR'S SUMMARY

'An ounce of prevention is worth a pound of cure', a quote often attributed to Benjamin Franklin. Prevention is certainly central to providing good dental care. Indeed last July Minister for Health Andrew Lansley assured MPs (and the dentistry community) that preventive care will be boosted in the new dental pilots. One way of implementing these words of 'wisdom' in dentistry could be through fluoride application. Topical fluoride varnishes have been shown to prevent dental caries in children and adolescents when used in conjunction with fluoride toothpaste.

Usefully, fluoride application is also a procedure which can be delegated to GDC registered dental nurses which was laid out in the 2009 GDC Scope of Practice.¹ In response the King's College Hospital Dental Nurses Education and Training Centre (DNETC) began running a certificate course in fluoride application in 2009.

The effectiveness of the course was evaluated by surveying the DNETC course attendees and the results reported in this research article. It was found that there was significant potential for employing dental nurses to deliver this prevention method in the community, surgery or hospital settings. The 36 respondents had treated 2,513 patients with fluoride varnish since the course completion. The majority of dental nurses responded to say that the training had had a positive impact on their professional career and they were confident in conducting fluoride applications.

However, 37% of respondents reported barriers to using their newfound skills as much as they would have liked. Many respondents reported that challenges largely related to the nurses' professional role within the team, for example problems included 'lack of community schemes', 'loss of interest' by the clinical lead and 'difficulty in being released from core nursing duties'. The authors

of this research article advocate that all nurses receiving fluoride varnish training develop an action plan with their employer to utilise their skills to avoid such barriers arising.

I encourage you to think about how you can support your own dental team to boost preventive dentistry and leave you with another Franklin quote: 'She laughs at everything you say. Why? Because she has fine teeth!' – in the future, perhaps her fine smile will be partly due to fluoride varnish application in childhood by a trained dental nurse.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 212 issue 10.

Ruth Doherty
Managing Editor

1. General Dental Council. *Scope of practice*. London: General Dental Council, 2009. Available online at [http://www.gdc-uk.org/Newsandpublications/Publications/Publications/ScopeofpracticeApril2009\[1\].pdf](http://www.gdc-uk.org/Newsandpublications/Publications/Publications/ScopeofpracticeApril2009[1].pdf) [accessed 15 May 2012].

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IN BRIEF

- Highlights the use of extended duty dental nurses and the clinical and professional benefits of extending their scope of practice.
- Demonstrates the potential for health improvement through implementation of programmes to enhance fluoride delivery, in both community and clinical settings.
- Identifies barriers to the use of extended duty nurses in fluoride application and suggests how they may be addressed.

COMMENTARY

In 1981, on the back of optimism that fluoride toothpaste would cause a decline in caries prevalence in the UK and bring with it a reduced need for dental treatment, the report of the Dental Strategy Review Group led to the closing and consolidation of dental schools and a 10% reduction in UK undergraduate dental places. Nobody at the time predicted that the rapidly increasing proportion of women entering the profession and expansion of private dental care with its emphasis on cosmetic treatments would create the need for more rather than fewer dentists. However, the valid prophesy of the report was the concept of a 'dental team'. This has now born fruit, with the expanding role of hygienists/therapists and the recognition that today's dental nurses are a vital and highly skilled part of the dental team in the UK.

The value of fluoride varnish application for caries prevention is well established and in the UK its use is enshrined in the Department of Health guidance document – *Delivering better oral health – an evidence based toolkit*. Dental nurses have an essential role to play in preventive dentistry and it is appropriate to look at the benefit of a fluoride varnish training course. This small but useful study highlights a number of advantages of and barriers to the extended role of dental nurses. By both role substitution and role extension they can free dentists and hygienists/therapists from a range of tasks so that the efficiency of the whole team

is enhanced. However, for the Strategy Review Group's vision to be fully realised a number of issues highlighted by this study need be addressed. The main one is that both general dental practices and community services must learn to value the extended role of dental nurses and integrate their skills. Effective utilisation of extended skills of dental nurses, especially in practices in areas of deprivation with high caries rates, could reduce the referral pressure on community services and help improve dental health. However, as this study shows, nurses must be valued and rewarded and be given clear role descriptions, support and clinical direction.

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AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

King's College London Dental Institute is part of an academic health science centre; this project combines our interest in teaching/training members of the dental team and health workforce research. King's College Hospital is running training courses for dental nurses wishing to extend their roles in line with the GDC guidelines on 'scope of practice'. Dental nursing staff at King's College Hospital were running a fluoride varnish training scheme attended by dental nurses from a range of backgrounds and dental public health researchers were interested in exploring the impact of this innovation on dental nurses' professional career and the extent to which the health system was using these skills. This initiative is an example of collaboration on health services research to inform future action.

2. What would you like to do next in this area to follow on from this work?

It will be important to investigate and promote models of clinical care whereby extended role dental nurses can provide care in clinical and community settings, with minimal barriers. Fluoride varnish application is just one of a range of skills in which dental nurses can receive additional training. In taking forward this area of work it will be important to look at the patient experience, the cost-effectiveness of these initiatives over time and the implications for staff retention and career progression, as well as team working.