

Differences by age and sex in general dental practitioners' knowledge, attitudes and behaviours in delivering prevention

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FULL PAPER DETAILS

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Purpose To assess sex and age differences in NHS dentists' knowledge, attitudes and behaviours in providing preventive care. **Materials and methods** A cross-sectional questionnaire survey was conducted with dentists working in North London, UK. **Results** The sample displayed limited knowledge in certain key aspects of prevention, but expressed generally positive attitudes towards preventive care. More female and younger dentists reported that a child should attend the dentist before the age of 3 years ($p = 0.03$ and $p = 0.04$, respectively). No other differences in knowledge or attitudes were found by age and sex. The majority of the sample reported routinely providing oral hygiene (95.7%), diet (85.4%) and smoking cessation advice (76.7%), but provision of alcohol advice was much less common (38%). A significantly higher proportion of younger dentists were more likely to give diet advice ($p = 0.03$) and smoking cessation support ($p = 0.009$) than their older colleagues. Female dentists were more likely to provide fissure sealants ($p = 0.04$), diet advice ($p = 0.02$) and smoking cessation support ($p = 0.03$). The main perceived barriers were related to organisational factors including insufficient remuneration (86.3%), lack of time (84%) and poor patient compliance (66%). There were no significant differences in perceived barriers by sex, but younger dentists were significantly more likely to identify poor patient compliance as a barrier ($p = 0.02$). **Conclusion** Although dentists in this study may lack some core preventive knowledge, many expressed very positive attitudes towards prevention and reported to be routinely offering a range of preventive measures. Younger and female dentists tended to engage more frequently in preventive activities.

EDITOR'S SUMMARY

The new NHS contract in England will *eventually* be with us. One thing we know now is that it will definitely feature more of an emphasis on prevention. Hopefully, the contract will also provide more time and remuneration for effective prevention. As the authors of this paper point out, the profession has in actual fact been delivering prevention for over 50 years. Indeed, a recent feature in this Journal unearthed articles as far back as 1918 which showed that dentists have been actively involved in the preventive message (in this case the dangers of sugars) for much longer than that.¹

However, we also know that preventive measures, for a variety of reasons, are often not being carried out as frequently or as effectively as is necessary. For example, a 2014 study by Bonetti reported that the evidence-based application of fissure sealants in Scotland was underused in primary dental care.² Why is this the case?

This particular article by Watt and colleagues investigates the knowledge, attitudes and behaviours of dentists (a sample from North London) to delivering prevention to patients. It also investigates whether or not there are any differences in these factors related to age and sex of general dental practitioners.

Research provides answers to questions. However, more often than not it raises more questions than it answers. This might understandably frustrate some but to me it is what makes research motivating. Life is never 'done' so to speak – that's sometimes what keeps us going.

I asked myself many questions as I was reading this *BDJ* research paper. Why is it that the female dentists in the sample are more likely to provide a range of preventive care than their male colleagues? Why are the younger dentists questioned for this study more likely to deliver prevention? Why are dentists not as comfortable with providing alcohol advice as

they are with providing smoking cessation information to patients?

Overall, the article indicated that NHS dentists may 'lack some core knowledge' in prevention. However, reassuringly (and somewhat unsurprisingly), it also showed that the majority 'expressed a positive attitude towards prevention and were offering a range of preventive measures to their patients'. Lots to think about in this paper and more important questions to answer.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 219 issue 6.

1. Westgarth D. From the archive: Now and then. *Br Dent J* 2015; **219**: 152–153.
2. Bonetti D L. Evidence not practised: The underutilisation of preventive fissure sealants. *Br Dent J* 2014; **216**: 409–413.

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IN BRIEF

- Examines NHS dentists' knowledge, attitudes, behaviours and perceived barriers in delivering preventive care.
- Reports that although respondents had limited knowledge of preventive topics, they had positive attitudes towards delivering prevention.
- Highlights that younger and female dentists were significantly more likely to provide a range of preventive care than their older and male counterparts.

COMMENTARY

This paper describes the responses to a questionnaire distributed to practices in North London. The aim was to assess the knowledge, attitude and behaviours of general dental practitioners in delivering prevention and to see if the answers varied by the age and sex of the respondents. A cross-sectional survey looking at the data in this way enables some estimates to be made as to what may happen in the future. For example, if younger dentists are engaging more with prevention then over time the amount of prevention being delivered might increase and the effect might be adjusted depending upon the relative actions of people of different sexes.

Practitioners' attitudes to prevention and their role in providing advice was very positive. What this paper shows is that, using these respondents, younger dentists were more likely to give diet advice and smoking cessation support than older dentists and women were more likely to provide fissure sealants, diet advice and smoking cessation support. Fewer respondents felt that they had a role to play in alcohol advice.

Of concern is that core knowledge on preventive matters was not answered correctly by many dentists. This was not related to either age or gender. For example, only around half of dentists were able to report the correct frequency of fluoride varnish application for children over 3 years or the recommended fluoride concentration in toothpaste for those over 5 years. The paper does not investigate why this might be but it does raise questions as to how people can be updated in NHS evidence-based, preventive-based practice as the evidence changes. Barriers to engaging in

more preventive activities were identified as inadequate remuneration, lack of time and concern over poor patient compliance.

This survey would suggest that while there are very positive attitudes towards prevention more training is required both knowledge and delivery of prevention. While it is to be hoped that the NHS reforms of the dental contract will remove the organisational barriers this cannot be assumed and needs to be kept under careful review.

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

The study was undertaken to assess dentists' knowledge, attitudes and behaviours in delivering a range of preventive activities and the degree to which this varied by the sex and age of the practitioners. Most studies in the literature have focused on specific preventive behaviours such as smoking cessation and alcohol advice, and very few studies have focused on broader preventive activities delivered in primary dental care settings. In addition, very few studies have assessed associations between dentists' demographic characteristics, namely sex and age, and the provision of preventive care. A more detailed understanding of dentists' knowledge, attitudes and experiences of delivering prevention is important to inform future policy.

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

Further research is needed to evaluate the effectiveness and cost effectiveness of preventive support delivered by dental teams on both oral and general health outcomes. In particular, multi-centre randomised controlled trials are needed to demonstrate the potential value of delivering a more holistic preventive approach in general dental practice. An important element of future trials would include a detailed process evaluation where barriers and facilitators for prevention would be explored from both the perspective of dental professionals and their patients. Future research on prevention in general dental practice must be grounded in the realities of the NHS. It is therefore essential that NHS dental staff are key members of research teams working in this area.