

# Summary of: Is further intervention required to translate caries prevention and management recommendations into practice?

P. Elouafkaoui,<sup>\*1</sup> D. Bonetti,<sup>2</sup> J. Clarkson,<sup>3</sup> D. Stirling,<sup>4</sup> L. Young,<sup>5</sup>  
and H. Cassie<sup>6</sup>

## FULL PAPER DETAILS

<sup>1</sup>Research Fellow, Dental Health Services Research Unit (DHSRU), University of Dundee/NHS Education for Scotland (NES), <sup>2</sup>Senior Research Fellow, DHSRU, University of Dundee, <sup>3</sup>Co-Director, DHSRU, University of Dundee; Director, Effective Dental Practice Programme, NES, <sup>4</sup>SDCEP Programme Manager, NES, <sup>5</sup>Research and Development Manager, NES, <sup>6</sup>Research Fellow, DHSRU, University of Dundee/NES; Dundee Dental Education Centre, Frankland Building, Small's Wynd, Dundee, DD1 4HN  
Corresponding author: Dr P Elouafkaoui  
Email: paula.elouafkaoui@nes.scot.nhs.uk  
Tel: +44 (0) 1382 740 917

Online article number E1  
Refereed Paper – accepted 24 October 2014  
DOI: 10.1038/sj.bdj.2014.1141  
\*British Dental Journal 2015; 218: E1

**Aims** In April 2010, the Scottish Dental Clinical Effectiveness Programme (SDCEP) published guidance on the *Prevention and Management of Dental Caries in Children*. The aims of this study were to determine if further intervention is required to translate the SDCEP guidance recommendations into practice and to identify salient beliefs associated with recommended practice. **Methods** Two postal surveys circulated to two independent random samples of dentists working in general dental practices in Scotland, before and after the publication of the guidance. The questionnaire items assessed current practice and beliefs relating to the prevention and management of dental caries in children. **Results** Response rates of 40% (n = 87) and 45% (n = 131) were achieved. The results highlight a gap between current practice and recommended practice. The majority of dentists do not 'always' perform recommended behaviours and many are following treatment strategies specifically not recommended in the guidance. More positive attitude, greater capability and motivation were significantly associated with performing more guidance recommended risk assessment and prevention behaviours. **Conclusions** These findings highlight the need for further intervention to translate the SDCEP guidance recommendations into practice and give initial insight into the salient beliefs that may serve as targets for future interventions.

## EDITOR'S SUMMARY

When a dental undergraduate, my year was fortunate enough to have a series of lectures by the great Professor J. Z. Young whose book *An introduction to the study of man* was a standard text at the time. I was reminded of the lectures when reading this paper because of the layers of observation that it contains. J. Z. Young posed the question in biological terms 'who repairs the repairer of the repairer?'; that is, expressed in a grossly inelegant way, at what point does a process cease to be viable?

Applied to the current paper it might be paraphrased to 'who monitors the behaviour of those who seek to change behaviour?' since the premise of the work of this group of researchers in Scotland revolves around not only producing guidelines but seeking to monitor how they are applied and what underlies changes in clinical practice using theoretical models of behaviour change.

The guidance in question is the *Prevention and management of dental caries in children* which aims to support gen-

eral dental practitioners in particular in dealing with the ever present problem of childhood decay. Very specific recommendations and procedures are included which aim to assess the caries risk, as well as advise of preventive and treatment interventions appropriate to levels of risk.

In line with other evidence that merely publishing and disseminating guidance is unlikely to achieve a desired behavioural change in health professionals, the results of this study showed that few dentists had taken much account at all of the recommendations. In some cases their personal practice had remained unchanged while in others there seemed to have been some behaviour which was actually contrary to the guidelines.

How to change behaviour? Ever a problem, but there are some psychological techniques that can be used to influence motivation. These include encouraging dentists to set specific goals and to provide information about how other colleagues, patients and professional bodies feel about what individuals are doing (or

not doing). However, the ability to change professional motivation and behaviour to produce a consistency of risk assessment, prevention and treatment intervention seems still to be a long way off.

The full paper can be accessed from the *BDJ* website ([www.bdj.co.uk](http://www.bdj.co.uk)), under 'Research' in the table of contents for Volume 218 issue 1.

Stephen Hancocks  
Editor-in-Chief

DOI: 10.1038/sj.bdj.2014.1163

**TO ACCESS THE BDJ WEBSITE TO READ THE FULL PAPER:**

- BDA Members should go to [www.bda.org](http://www.bda.org).
- Click the 'login' button on the right-hand side and enter your BDA login details.
- Once you have logged in click the 'BDJ' tab to transfer to the BDJ website with full access.

**IF YOUR LOGIN DETAILS DO NOT WORK:**

- Get a password reminder: go to [www.bda.org](http://www.bda.org), click the login button on the right-hand side and then click the forgotten password link.
- Use a recommended browser: we recommend Microsoft Internet Explorer or Mozilla Firefox.
- Ensure that the security settings on your browser are set to recommended levels.

**IF YOU HAVE NOT YET SIGNED UP TO USE THE BDA WEBSITE:**

- Go to [www.bda.org/getstarted](http://www.bda.org/getstarted) for information on how to start using the BDA website.

**IN BRIEF**

- Describes current practice for the prevention and management of caries in children.
- Highlights a gap between current practice and guidance recommended practice.
- Adds to the body of evidence that, in addition to the publication of guidance, further intervention is likely to be required to achieve a desired change in practice by health professionals.

**COMMENTARY**

Behaviour change is not a simple matter. With both patients and health professionals, behaviour change is often a complex and lengthy process. Very rarely do individuals change their behaviour merely because they acquire new information or knowledge. Quite simply, new knowledge alone does not translate into changing our behaviours. For many years systematic reviews of published oral health education interventions have demonstrated that patients do not change their oral health related behaviours just because someone has given them a leaflet or some health advice. Instead a range of inter-related psychological, social, and environmental factors influence the ability of a person to alter their behaviour in a sustained fashion. In oral health promotion, the challenge now is to create a supportive environment for patients and the public where behaviour change is possible, and indeed promoted. This requires a range of different complimentary strategies to be implemented which together provide both the opportunity and means of changing behaviour.

All too often august and eminent organisations produce glossy guidance publications for health professionals in the hope that these resources will influence and change health professionals clinical practice. Unfortunately just like patients, these resources are politely ignored or merely filed away by busy clinicians. The interesting study by Elouafkaoui and colleagues provides useful evidence of the limitations of passively disseminating evidence-based clinical guidance to clinicians. Their simple study has shown that despite being aware of these particular guidelines on the prevention and manage-

ment of dental caries in children, most dentists in the study did not change their practice in line with the guidance. Indeed in some instances the desired behaviours actually decreased after circulation of the guidelines. The authors rightly conclude that more needs to be done to facilitate and support dental professionals ability to change their clinical behaviours. Psychological constructs such as attitudes and motivation are important but as Elouafkaoui and colleagues have elegantly shown these individual measures do not fully predict behaviours. Perhaps most importantly is the need to alter both the organisational structures and the wider health care system so that sufficient time and appropriate incentives are provided to clinicians to enable them to practice evidence-based care. Any organisational or system reform would of course need to be carefully and independently evaluated to determine their impact and effectiveness.

Professor Richard G Watt  
Professor and Honorary Consultant in  
Dental Public Health  
UCL

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

This research was conducted as part of the Translation Research in a Dental Setting Programme (TRiaDS), a research collaboration embedded within the SDCEP (Scottish Dental Clinical Effectiveness Programme) guidance development process. Part of our remit is to evaluate the impact of guidance on practice and to determine if additional interventions are required to support dentists to incorporate guidance recommended practice into their everyday care of patients. This study enabled us to collect information on preventive measures currently being conducted and how caries is being managed in dental practices across Scotland. This could then be compared with guidance recommended practice to assess if further intervention is required.

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

The results from this study have highlighted that further intervention is required to encourage recommended practice for the prevention and management of caries in children. The findings have already informed other TRiaDS investigations into policy and patient factors which may also be influencing caries prevention in primary dental care across Scotland. The SDCEP Prevention and Management of Dental Caries in Children guidance will be updated in 2015 and we will build on the work in this study to design, test and evaluate tools and interventions to further support dentists translate evidence based guidance into routine clinical practice.