# RESEARCH INSIGHTS

### Say it right

Patient understanding of commonly used oral medicine terminology *Br Dent J* 2017; **223:** 842–845; http://dx.doi.org/10.1038/sj.bdj.2017.991



Verbal communication between the dentist and patient underpins our profession. The words we use to ask questions and explain things to our patients determine whether we make a correct diagnosis, prognosis and treatment plan.

However, with Internet searches and social media available at many patients' fingertips, more and more patients are being exposed to inaccurate and over complicated terminology. This leaves many confused by the time they visit us in practice. It is therefore paramount that we avoid using jargon and communicate effectively with all patients in order to achieve the best health outcomes.

In this paper, the authors carried out a questionnaire-based study in out-patient clinics at a London teaching hospital. The questionnaire comprised of three parts with the aim of finding out how well patients understood commonly used oral terminology. In total 123 questionnaires were completed and the conclusions that could be drawn from the study are:

- Patients with a higher level of education (undergraduate degree or above) find it easier to understand and explain commonly used oral terminology than those with a lower level of education (A-levels or below)
- Patients who speak English as their first language are more likely to be able to

- understand and explain commonly used oral terms
- Oral terms that are used commonly outside of a medical setting, eg 'blister', are better understood by patients than terms used mainly in the medical setting alone, eg 'lesion'
- Patients can confuse oral terms with other medical terms that sounds similar, eg 'metastasis' and 'mastitis'
- Oral terms that describe common conditions in the population or something experienced by the patient themselves are better understood by patients, eg 'ulcer' and 'biopsy'
- Use of the term 'potentially malignant disorder' instead of 'pre-malignant' should be considered as nearly half of participants thought 'pre-malignant' was indicative of having cancer/definitely developing cancer at some point in life.

This paper highlights that both culture and education can influence a patient's understanding of terms we use regularly. Having a clear understanding of our patient's background can help us deliver excellent patient care. For some patients this might require using a translator, while for others it may simply be using terms that they're more familiar with.

By changing our verbal communication with our patients, we can ensure we are providing them with all of the information they require to make informed decisions.

> Priti Pankhania, Third Year Dental Student, University of Leeds

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# RESEARCH INSIGHTS

#### Stickers are so 2016!

What reward does a child prefer for behaving well at the dentist?

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For many years dental practitioners have been providing stickers to paediatric patients as a form of positive reinforcement to encourage cooperative behaviour. However, does the reward of stickers actually lead to positive reinforcement in children?

In this paper, James Coxon and co-authors looked at the opinions of children aged 4–8 years in relation to their desired reward for attending the dentist. This highlighted that there was no clear favourite reward among children but a 'sticker' reward was never chosen. So, why is this still our reward of choice if it is clearly not desirable?

The research identified that the most popular reward choice for children in divided age groups was as follows:

- 4-5 years: bubbles (33%), princess badges (24%) and dino glider (19%)
- 6-7 years: highlighter (46%), egg (18%) and alien slingshot (18%)
- 8 years: Marvel figure (36%) and dino egg (21%).

An issue with this research is that different reward choices were provided to the different age groups, meaning a variety of 'favourable' rewards have been identified. It may not be feasible to offer this range of rewards in general dental practice; equally some of the rewards given are quite 'current' (eg Marvel, Despicable Me) but keeping on top of trends may be a challenge.

This study also looked into whether or not caregivers could accurately determine what their child would choose as a reward. Caregivers only agreed an average of 34% of the time, and disagreement was seen more often as the child got older. Therefore, this indicates that healthcare professionals are also unlikely to determine what an effective reward

#### **Expert view**

Dr 70e Marshman

Reader/Honorary Consultant in Dental Public Health

School of Clinical Dentistry, Sheffield



Child dental anxiety is common with potentially significant impacts on children's oral health, their quality of life and occupational stress for the dental team. Non-pharmacological approaches available to dental teams when caring for dentally anxious children range from simple behavioural techniques, such as positive reinforcement and tell-show-do to more complex cognitive behaviour therapy.¹ Positive reinforcement in general dental practice often involves the use of praise and stickers given to children for good behaviour. When used in this way children are rewarded and encouraged to develop positive behaviours for future visits.

This paper challenges the use of stickers as the preferred reward for children when visiting the dentist. A sample of over 50 children aged 4-8 years attending a dental practice where asked to choose which reward they would prefer from 10 different options. The rewards were

low cost toys, badges and included stickers as an option. Children from the youngest age group to the oldest said their preferred rewards were bubbles, highlighter pens and comic book figures. *No* children said they preferred stickers.

The authors highlight the need for further research into the timing of giving the reward which raises questions about whether stickers are actually given as rewards for positive behaviour, such as completing the treatment as planned, or are just given out routinely to all children or whether they are in fact used as bribes once children start exhibiting negative behaviour?

Interestingly, parents were found not to be well placed to predict which reward their child would choose. The findings of this study suggest that to promote child-centred care children should be involved both in the selection of the choice of rewards on offer and also be able to choose the reward they would like themselves. The benefits of providing dentally anxious children with choice and indeed control during dental treatment have been found to successfully reduce dental anxiety.<sup>2</sup>

- Soldani F. Non-pharmacological behaviour management techniques: An art and a science. In Dental fear and anxiety in pediatric patients practical strategies to help children cope. C Campbell (ed). Springer, 2017.
- Porritt J, Rodd H D, Morgan A et al. Development and testing of a Cognitive Behavioural Therapy resource for children's dental anxiety. JDR Clinical & Translational Research 2017; 2: 23–37.

would be to achieve positive reinforcement. Ensuring a small range of reward choices at the dentist would be beneficial, opposed to just handing over a sticker with Elsa or Spiderman on it. This increases the likelihood that the reward is relevant and of importance to the child and encourages repetition of the positive behaviour displayed in the appointment.

We are now aware that a more positive reaction is gained from children when they receive rewards other than stickers. However, we need to know if this is really effective in developing cooperation in these patients. Are these novel rewards helping in providing successful, cost-effective paediatric dentistry or are we just bribing children to behave?

Sophie Bryant, Dental Student, University of Leeds

## Rewards chosen by children aged 4-5



**Author Q&A** 

Tim Newtor

King's College London Dental Institute



### Why did you choose to study this?

We had previously undertaken research which suggested some gaps in the understanding of the psychological principles underlying the use of rewards amongst dental practitioners. This research explores the type of reward that might be appropriate for children of different ages.

#### Did anything surprise you?

When given a choice children clearly do not choose stickers as a reward which, while it didn't surprise us, may be surprising to practitioners. What is surprising is the low levels of agreement in reward choice between children and parents.

### What would you recommend dentists provide on the basis of this research?

Dentists, or the reception team, should offer a range of possible rewards to children before they enter the surgery, making it clear that the child will receive the reward if they complete their appointment successfully. The chosen reward should only be given if the child manages the behaviour that was required of them. Note that the reward will be given for the behaviour not a value judgement, so for example 'That's amazing, you had your fissure sealant' or 'Well done, you sat really still during the examination' would be examples of linking reward to behaviour whereas 'Well done, you were good today' is a value judgment and does not make it clear what the child did that was 'good'.

# RESEARCH INSIGHTS

### Can poor oral health lead to dementia?

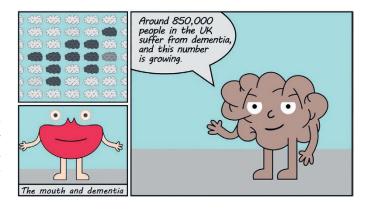
Evidence Summary: The relationship between oral health and dementia *Br Dent J* 2017; **223:** 846–853; http://dx.doi.org/10.1038/sj.bdj.2017.992

It is easy to understand how cognitive decline can lead to poor oral health, but could the converse also be true? Dementia is a syndrome which causes chronic impairment in cognitive function, hugely impacting the sufferer and those around them. It can affect dental health in many ways: from a reluctance to attend long appointments to forgetfulness when it comes to home care. General dental health professionals see patients (hopefully) over long periods of their life so are in prime position to notice a decline in both their oral and cognitive health.

In this review, Daly and co-authors consider the outcomes of a decade of studies to find a strong association between cognitive decline and poor oral health. They present compelling evidence that dementia can affect oral health in a number of ways. Patients with dementia are less likely to brush twice a day and are more likely to have plaque, caries and poor denture hygiene. This seems logical; patients with dementia may not remember to brush their teeth and may find it difficult to communicate problems with their oral health.

However, unexpectedly, the authors also propose that poor oral health is a risk factor for dementia. Patients with increased plaque and caries were found to be at risk of cognitive decline. Amongst denture wearers, being able to chew properly was linked to a lower risk of dementia. This is a bold claim, suggesting that not looking after your teeth could put you at risk of dementia. The authors are quick to point out that these studies are of variable quality and further well-designed studies are necessary before definitive conclusions can be drawn.

Considering the increasing prevalence of dementia, it is surprising there



is little well-designed research into dementia and oral health. This should concern us as this review suggests dental professionals may have a role to play in dementia prevention. The authors rightly suggest declining oral health should be a red-flag to consider causes such as dementia. One thing is certain: these patients and their carers should be shown how to keep a mouth healthy.

In summary, those with dementia are more likely to have poor oral hygiene with a suggestion that this relationship is reciprocal. The authors suggest that further research is desperately needed. Nevertheless this review is an important reminder that, regardless of whether poor oral health increases dementia risk, we must always consider the wider possibilities for declining oral health.

Katherine Kaczmarczyk, Dental Undergraduate, University of Leeds



Learn more about these findings via the 'Oral health is not just about the mouth' animation on the BDJ Youtube channel <a href="http://bit.ly/BDJYouTube">http://bit.ly/BDJYouTube</a>

To find out more about work being carried out looking at the feasibility of oral health promotion using community pharmacists, we spoke to Dr Andrew Sturrock from the University of Sunderland about his recent BDJ paper. If you are interested in learning even more why not read Stephen Hancocks' summary of the paper here: http://go.nature.com/2B8mqG8 or the full paper at http://go.nature.com/2BkamTi

#### Why do think providing oral health advice is a new thing to pharmacies?

I don't think that the provision of oral health advice is necessarily a new thing for pharmacies. Pharmacists and their staff have always provided oral health advice to patients or signposted them to dental services. What this pilot facilitated was a more structured and targeted approach with pharmacists actively looking to engage patients with oral healthcare.

This pilot allowed pharmacists to take advantage of their location in communities and unique access to patients who otherwise would not seek oral healthcare.

#### Did any of the results surprise you?

I expected that patients would be receptive to receiving oral health advice in pharmacies as community pharmacies already engage with many other health promotion initiatives and services. The most pleasing

Author Q&A Andrew Sturrock University of Sunderland



finding was that 66% of participants reported that they intended to change their oral health habits as a result of the intervention.

#### What do you think the next steps considering your findings?

I would like commissioners to embrace the potential of pharmacies in providing oral health advice and hope that the pharmacy and dental professions can work closely to improve patient care. From a research perspective it would be great if we could explore the actual patient benefits of such services, as although patients reported improved knowledge and intension to change current behaviour there is no evidence of any lasting health improvements. There is also great potential for pharmacists to expand their role into other areas of oral health, the prevention or screening of oral cancer, managing adverse drug reactions such as xerostomia or in the prevention of MRONJ and the links with chronic diseases such as diabetes all warrant further research.