IN BRIEF

- This study reports the views of GDPs and specialist paediatric dentists on how they would approach the care of young children presenting with a range of common clinical scenarios.
- Large variation was found in the treatment choices for the scenarios within both generalists and specialists.
- Different patterns in the approach to care were found when generalists and specialists were compared.
- This variation is at odds with an evidence based approach to healthcare.
- Randomised controlled trials are needed to identify the best way of treating young children with carious primary teeth.

Approaches to treating carious primary teeth

Approaches taken to the treatment of young children with carious primary teeth: a national cross-sectional survey of general dental practitioners and paediatric specialists in England **M. Tickle,[1] A. G. Threlfall,[2] L. Pilkington,[3] K. M. Milsom,[4] M. S. Duggal[5] and A. S. Blinkhorn[6]**

ABSTRACT

Aim

To measure the distribution of choices for the treatment of a child with differing severities of caries in a primary molar tooth among specialists in paediatric dentistry and general dental practitioners (GDPs) in England.

Method

Two surveys were undertaken using the same tool. The populations invited to take part in the study were confined to dentists practising in England in 2004. They were 500 GDPs selected at random from the list of all GDPs with a National Health Service (NHS) contract identified by the Dental Practice Board (DPB) and all 148 specialists in paediatric dentistry appearing on the General Dental Council specialist register. The selected dentists were sent a questionnaire containing four hypothetical clinical case scenarios in which the severity of dental caries in a single primary molar differed. Each clinical case scenario had a list of possible treatment options and participants were asked to select their single most preferred treatment option. To maximise the response rate there were three mailing rounds.

Results

Of the 500 GDPs and 148 paediatric specialists sent a questionnaire, 322 (64%) GDPs and 115 (78%) specialists responded. The answers to each of the case scenarios indicate differences of opinion both between and among GDPs and specialists in the care they would recommend for a child with caries in a primary molar tooth. This variation in opinion about care was more pronounced for a single deep carious lesion than for a less severe lesion. The spread of treatment options chosen in each scenario indicates disagreement among GDPs and specialists about restorative techniques and philosophy of care.

Conclusion

In England there is wide variation among GDPs and specialists in paediatric dentistry about the best way to treat a young child with caries in a primary molar tooth. Well designed studies are urgently needed to provide strong evidence for the most effective way to manage the dental care of children.

EDITOR'S SUMMARY

Will we ever as a profession be able to agree, or come to a consensus over the vexed matter of when, how and when not, to restore the primary dentition?

My guess is that since we have not been able to do so to date we may never reach one conclusion, possibly having to settle for a grudging compromise. Is this such a surprise, is it necessarily a bad thing? Dentistry is about art as well as science and the 'art' of treating young children can be an extremely difficult one to practice. Remember we are talking about youngsters under the age of probably nine years old, maybe ten at the outside. Older than that and the debate tails off to insignificance except in special circumstances.

If it were not such a complex area there would not be such a plethora of opinions and techniques. Would we have had to have invented the Atraumatic Restorative Technique (ART) if every small child was unremittingly co-operative? Would the Hall technique of stainless steel crown application,[1] which caused such an uproar when we published the paper last year, have been considered even remotely appropriate if oral health in Scotland was better and attitudes to restorative care more positive?

What is the conclusion of the authors' work? That more and better research is needed. For how long have we been treating children's teeth that we have not yet been able to answer that apparently vital question by now? In her Commentary, Professor Chadwick underlines the difficulties there are in terms of constructing the definitive research project on this subject but the fact of the matter remains that we may have to agree to disagree on this one. If the jury is still out, so to is the moral high ground on either side.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 203 issue 2.

Stephen Hancocks,
Editor-in-Chief

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FULL PAPER DETAILS

[1*]Professor of Dental Public Health and Primary Care, [2]DH Research Training Fellow, [3]Research Assistant, [4]Consultant in Dental Public Health, Oral Health Unit, National Primary Care Research and Development Centre, The University of Manchester, Williamson Building, Oxford Road, Manchester, M13 9PL; [5]Professor of Child Dental Health, Leeds Dental Institute, Clarendon Way, Leeds, LS2 9LU; [6]Professor of Oral Health, Oral Health Unit, National Primary Care Research and Development Centre, The University of Manchester, Williamson Building, Oxford Road, Manchester, M13 9PL
*Correspondence to: Professor Martin Tickle, Manchester University Dental School, Higher Cambridge Street, Manchester, M15 6LP
Email: martin.tickle@manchester.ac.uk

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AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?
This research was influenced by the findings of a previous qualitative study which showed large variation in the approach to care of children by general dental practitioners in the North of England. This study was undertaken to identify if this wide variation in practice was evident in a nationally representative sample of GDPs and paediatric dentists. The study also wanted to compare the approach to care taken by GDPs and specialists.

2. What would you like to do next in this area to follow on from this work?
The wide variation in practice both within and between GDPs and specialists is worrying. The evidence base to decide what constitutes best practice is lacking in this field. Large well-conducted randomised controlled trials are required to determine the effectiveness of preventive regimes and restorative treatments in young children.

COMMENT

This paper presents the treatment options preferred by GDP's and specialists given four scenarios of increasing caries severity in the same molar for a six-year-old. The results suggest that there are differences of approach for each of the given scenarios, in particular the restorative approach used. This is not surprising – it has been recognised for many years that dentists find it difficult to agree when diagnosing or deciding whether or not to treat dental caries. The authors acknowledge that each scenario could be successfully treated by different management options and this poses a dilemma for teachers, clinicians, patients and funders – how do you determine best treatment?

This is not a simple question; the answer will vary depending on the clinical situation, child or dentist. While RCTs are the gold standard for determining treatment, they are relatively uncommon in dentistry. This report suggests that they usually measure restoration longevity rather than outcomes of different approaches to care. It also strongly suggests that non-specialists prefer to use a less interventive approach, even though ART has been shown to be inferior to conventional cavity preparation in a clinic setting.[1,2]

I agree with the authors' suggestion that well constructed trials are needed to investigate different management options. Clearly the research should be undertaken in a practice environment or it will be ignored by GDPs. This presents a dilemma as involving GDPs in clinical trials has proved difficult in the past. Because the dentist is an important variable a large number of operators, both generalist and specialist are desirable. The greatest challenge may well be finding operators who are both willing and able to practice both traditional restorative paediatric dentistry and ART (or other approaches), randomly allocated by a clinical protocol rather than their own beliefs.

B. Chadwick
Professor/Honorary Consultant in Paediatric Dentistry, School of Dentistry, Cardiff University

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