

## Editorial

# Providing children with the quality dental care they deserve

We have some of the best data for the dental disease experience in children in the United Kingdom through a tradition of dental health surveys carried out every 10 or so years. Over the last 30 years, these surveys have provided us with figures which have been interpreted by the academics in Dental Public Health and politicians alike to convey to the world the tremendous dental health that children of the United Kingdom enjoy. But these headline statistics mask the high levels of disease borne by many children usually from deprived backgrounds. It also masks the fact that this burden of managing these high levels of disease falls upon the shoulders of the clinicians at the coal face. These clinicians face the unenviable task of dealing with a population with many social problems and a service that is woefully under funded. Given this background it is no surprise that the published Care Index for 5-year-old children (Pitts *et al.*, 2005), reflecting the percentage of caries that is treated with restorative care, is a matter of national shame. Even for 11-year-old children, where only caries in the permanent teeth at the level of dentine was considered, the care index on average was around 41% but could be as low as 20% in some parts of the country (Pitts *et al.*, 2006), meaning that in some areas four out of five permanent decayed teeth where caries was into dentine were not being restored. These figures should send a shiver down the spine of every dental health professional, who believes that dentistry is a caring profession. How can we condone the non treatment of a disease that carries such a high morbidity and knowingly put the child at risk of pain and suffering?

The recent debate in the U.K on whether to restore decayed primary teeth at all was sparked by the publication of a paper (Tickle *et al.*, 2002) in which the discussion, conclusions and extrapolation of the results by the authors were in many instances speculative and not always a true reflection of the methods used and of the results of the study. The most important conclusion of the study that there was no difference in the outcome measures of pain, extractions etc. between teeth that were restored or left unrestored cannot stand up to scrutiny because the quality of the restorations performed in the teeth to which the unrestored teeth were compared was unspecified. Other studies have shown that untreated caries in young children, especially preschoolers carries a high morbidity, including pain (Levine *et al.*, 2002; Shepherd *et al.*, 1999). A more recent study (Pine *et al.*, 2006) clearly showed that the proportion of children with sepsis increases markedly with caries experience and this problem can be mitigated if more caries is treated. The authors, who based their findings on a sample of nearly seven thousand 5-year-old children in Scotland, concluded rightly that the findings of their study would not support a policy of non-intervention for primary

teeth. It is obvious that when the presenting complaint is that of sepsis, the tooth is more likely to be extracted. Milsom *et al.*, (2003) showed that extraction in pre-school children was highly likely to be associated with fear of dental procedures. This in my view is as strong an argument as any for good quality restorative care for carious primary teeth, with restorations that are performed to standards that do not circumvent the basic principals of restorative dentistry, as is often the case when primary teeth are restored in general dental practice. Wedging a dollop of glass ionomer cement between cavity walls after inadequate removal of caries without local analgesia is not good quality restorative dentistry, and it is no surprise that such restorations frequently fail further precipitating the myth that restorations in primary teeth don't work as well as in the permanent. Children deserve better.

Dentists need to be better trained in the diagnosis of the state of pulp in response to proximal caries in primary molars. It was shown three decades ago (Hobson, 1970) and more recently again (Duggal, 2002) that pulp inflammation sets in early especially for proximal caries, and precedes the exposure of the pulp. A high failure rate of restorations in general dental practice is a reflection that many such teeth are restored without due consideration to the pulp inflammation, longevity of restorative materials or principles of cavity design. Teeth with proximal caries are usually restored with conventional restorations when they should have been restored after pulp therapy (pulpotomy) has been carried out to remove the inflamed part of the primary dental pulp. This would certainly put an end to the myth that the restoration of primary teeth is futile.

It is obvious to me that those who feel that providing good quality restorative dentistry with local analgesia in children is tantamount to "traumatic dental treatment" have never provided such care and are ignorant of the positive effects that good quality dental care has on the child's long term dental attitudes. We all hear the people who advocate a non-interventionist approach call for evidence when challenged. There is ample evidence in the literature to show that primary teeth restored following principles of good restorative practice, preceded and followed up with a tailor made preventive programme do very well indeed and excellent success rates have been reported (Mass *et al.*, 1999; Fuks *et al.*, 2000). Also, in countries where emphasis is on restorative dentistry for children, fewer children are subjected to the archaic practice of extractions of teeth under a general anaesthesia as practiced rampantly across the U.K. In no other European country is the use of dental general anaesthesia for extractions of children's teeth so prevalent and this is unlikely to change unless our care index improves in general dental practice and the dentists apply the same principles to restore primary teeth as they do permanent

teeth. Just because the GDPs are not using a technique such as stainless steel crowns, proven to have an excellent outcome for carious primary molars with extensive caries, this should not be an argument against the technique as made by certain authors (Threlfall *et al.*, 2005). The results reported in this latter study were not a reflection of a negative bias of the GDP's against stainless steel crowns, even though the authors readily reported the few negative statements made by some dentists. Many dentists in this study felt that they would do more crowns if they had more training and if the reimbursement was more appropriate. There are extensive studies, including a systematic review (Randall *et al.*, 2000), documenting the excellent outcome of this technique, which should be the basis for providing adequate training to dental students and GDP's to provide this treatment and to fund it adequately to encourage its use. It makes little sense to suggest that a procedure that has such an excellent outcome be abandoned because of the apathy of GDP's which is more a result of years of under training in the use of technique and its poor funding in the NHS.

Of course it would be great to have results from a prospective randomised control study, but until one is carried out we cannot sweep under the carpet the overwhelming evidence of the longevity of those restorations and techniques for primary teeth that are performed to the highest standards of principles of restorative dentistry. Also, in my opinion, it would be unethical for any clinical trial to include a group where no treatment is offered for caries, a disease which is known to progress and carries a risk of morbidity. I have been unable to find any convincing evidence in the literature that leaving untreated primary teeth would not cause at least discomfort and in many cases pain and suffering for the children. Any funding organisation would have to appraise itself of this ethical dilemma before committing to funding such a trial. It would be more prudent to compare the traditional way primary teeth are restored in general dental practice with the way that would be advocated by specialist paediatric dentists in a prospective setting. Such a trial would be useful and would also win the support of those clinicians who feel that children deserve the best possible care for the restoration of their dentition.

It is more than likely that the majority of children in the U.K will be treated in general dental practices in the near and foreseeable future. We must ensure that those children who still get caries do not suffer further from the provision of poor care and its consequences. Specialists in hospitals treat children on a daily basis with severe facial infections caused by poor restorations, placed with a disregard to restorative principles, or a non-interventionist "keep under observation" approach. This has implications for the child's immediate well being, future attitudes and also has serious cost implications for the health services. Hospital paediatric dental services across the U.K are overrun with children referred by GDPs for pain due to untreated carious primary dentition. Most services are at a breaking point and are no longer offering restorative services but only extractions under a general anaesthetic as they cannot cope with the sheer number of referrals of children with caries in the primary teeth. Is this an appropriate introduction to dentistry and dental care we wish to impart to our children? No doubt such an ap-

proach will lead to the formation of a negative view of dentistry such as one that blights our nation currently. The majority of emergencies can be averted by simple interventions thus avoiding a traumatic event in a child's life that might have a lifelong negative impact on their dental attitudes.

The low care index in the primary dentition is not an issue that concerns dental public health. It is an issue of training clinicians adequately and providing adequate funding for them to provide the preventive and restorative care that they can and want to provide and the care that all children deserve. In a pilot project carried out in Leeds at the behest of the Department of Health, a few general dental practitioners who expressed a special interest in treating children (otherwise known as Dentists with Specialist Interests) underwent a short period of further training in paediatric dentistry and were offered higher fees for the restoration of primary teeth in their practices. The results overwhelmingly showed that the quality of restorative dentistry they were providing was excellent and more pulpotomies and stainless steel crowns were provided in their practices than ever before with fewer failures of restorations.

Instead of calling for a non-interventionist approach to fit in with inadequately funded services, which gave rise to such a philosophy in the first place, we should call for children's care to be funded appropriately. If as a nation we cannot afford to provide levels of funding that would sustain the provision of high quality restorative dentistry in children then we should be honest and say so, rather than develop a compromise philosophy of "supervised neglect" to suit the funding. Parents then would be free to seek quality dentistry elsewhere in the private sector, outside the NHS, as is now happening for adults. With the current system there is no choice and the parents of children with caries often have to accept the provision of mediocre care in the GDS, or nothing at all. We have well established specialist training programmes and specialist paediatric dentists in the Community Dental Service (CDS) and in hospital services. More and more dental therapists are being trained and will be available to work in General Dental Service (GDS) in the future. I believe that we have an excellent platform for the provision of high quality care for all children who are still unfortunate enough to suffer from dental caries.

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