

The influence of speciality training, experience , discussion and reflection on decision making in modern restorative treatment planning

A Preliminary Report.

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**A full and comprehensive paper has been submitted for publication to the
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Introduction

The Dental Pan-Society is a triannual joint meeting between the specialist restorative societies in the UK (British Endodontic Society, British Society of Periodontology, British Society for Restorative Dentistry, and the British Society for the Study of Prosthetic Dentistry). Its aim is to facilitate discussion and debate on current issues in restorative dentistry with the first meeting held in Birmingham, UK in November 2007. The societies represent both specialists and non-specialists and the conference is, also open to non-members of the societies.

As part of the conference and to stimulate debate a discussion forum centred around two clinical cases was included in the programme. Delegates were asked a series of questions where both endodontic re-treatment or extraction and prosthetic replacement were viable options. In addition, recognised experts in the various restorative specialities were included in the discussion.

The aim of this study was to assess the effect of reflection and discussion by delegates from different backgrounds in the decision making process of one of these cases.

Materials and Methods

Two case studies were posted on a website (http://www.pandental2007.org/case_studies.html) one month before the conference to allow delegates to familiarise themselves with the cases that were to be discussed.

At the start of the session, the Chair asked delegates a series of questions, through a MS Powerpoint presentation related to their experience and background. These included year of qualification, clinical practice, specialist status and clinical activity. Their responses to these and all other subsequent questions were recorded via a closed circuit recording system. Individuals were given a thirty second time interval to record their responses

The case was then illustrated and a series of questions relating to the management of the case were presented to the audience. The case was then discussed by a panel of four internationally recognised specialists representing the specialties of prosthodontics, periodontics and endodontics. Discussion points included the issues of placing implants in the aesthetic zone, the question of soft tissue and bone quality post extraction, the outcome of secondary root canal treatment and the restorability of the endodontically treated teeth. At the end of the discussion delegates were asked once again on how they now felt the case should be managed and in particular whether endodontic re-treatment or extraction and prosthetic replacement would be their treatment of choice.

Results

Of the 393 delegates that took part in the survey 64% of respondents were male and the majority of delegates qualified from 1985 onwards (Figure 4) with 47% qualifying between 1990 and 2007. The majority of respondents (64%) were either general dental practitioners (31%) or specialist practitioners (33%) with the remainder comprising hospital based staff of various grades (Figure 5). 52% of delegates worked solely within private practice, 18% wholly in the NHS and the remainder a mix of each. Of the 33% of delegates that were specialists, 37% were first registered as specialists in 1998. Specialists in periodontology accounted for the greatest number of specialist delegates (17%) followed by endodontists (14%), prosthodontists (12%) and restorative dentists (10%) (Figure 8).

The initial reaction of the majority of all respondents (specialists and non-specialists) was that extraction and prosthetic replacement of the anterior teeth was the treatment of choice (58%). The results for all non-endodontic specialists showed that the majority felt that extraction and prosthetic replacement was the treatment of choice. This was in contrast to specialists in endodontics who favoured endodontic re-treatment (70%).

Of those that felt endodontic re-treatment was the treatment of choice, 73% felt that both orthograde and retrograde endodontic treatment should be provided. The majority of all delegates felt that the post-endodontic restoration should be individual metal ceramic crowns (56%) followed by individual highly sintered crowns (28%).

If extractions were embarked upon, the use of an implant retained prosthesis was the most popular mode of rehabilitation by all delegates (68%) followed by adhesive bridgework. The results from specialists shows that an implant retained prosthesis

was still the most popular choice and in similar fashion to specialist was followed by adhesive bridgework. Results by clinician showed that an implant restoration was the favoured method of restoration for all delegates but especially for both specialist practitioners (82%) and specialist trainees (75%). Choice of definitive restoration by year of qualification showed that recent graduates in cohorts 2000 -2005 (63%) and 2005-2007 (58%) were less likely to consider implant rehabilitation than those delegates who qualified in the decades preceding.

Following the discussion section the results showed 49% of respondents favoured endodontic re-treatment with 51% favouring extraction and prosthetic replacement. This represented a 7% increase in those favouring endodontic re-treatment. The initial and post discussion changes of individual specialist cohorts is illustrated in Figure 1. These results were significant at the $p=0.005$ level using a Chi-square test.

Figure 1 Table illustrating initial response and post response decision of delegates on whether to extract and prosthetically replace or endodontically re-treat. All results were significant using Chi-Square test at the 0.005 level.

Decision to extract and prosthetically replace.	Initial Response	Response after reflection and discussion
Specialists in Restorative Dentistry	65%	69% (+4%)
Specialists In Prosthodontics	64%	66% (+2%)
Specialists in Periodontology	74%	71% (-3%)
Specialists in Endodontics	30%	25% (-5%)

Discussion

This preliminary report suggests:

1. that most practitioners consider implants as a viable option when faced with teeth of questionable endodontic and prosthodontic prognosis.
2. that a discussion forum and the input from opinion leaders in can have a significant effect on treatment planning.
3. that there may still be barriers to the provision of implant restorations for those in hospital practice.