Summary of: Orthodontic referral behaviour of West Sussex dentists

O. A. Jackson,[1] S. J. Cunningham,[2] D. R. Moles[3] and J. R. Clark[4]

VERIFIABLE CPD PAPER

FULL PAPER DETAILS

[1*]Specialist Registrar in Orthodontics, [4]Consultant Orthodontist, Orthodontic Department, St. Richard's Hospital, Spitalfields Lane, Chichester, West Sussex, PO19 6SE; [2]Senior Lecturer/Honorary Consultant and MSc/MOrth Programme Director, Orthodontic Unit, UCL Eastman Dental Institute, 256 Gray's Inn Road, London, WC1X 8LD; [3]Professor of Oral Health Services Research, Director of Postgraduate Education and Research, Specialist in Dental Public Health, Peninsula Dental School, The John Bull Building, Research Way, Plymouth, PL6 8BU
*Correspondence to: Miss Orla Aine Jackson
Email: orlajackson1@yahoo.co.uk

Online article number E18
Refereed Paper – accepted 22 June 2009
DOI: 10.1038/sj.bdj.2009.979

Objectives 1) To examine the orthodontic referral behaviour of dentists and 2) to examine dentists' familiarity with the Index of Orthodontic Treatment Need (IOTN). **Design** Postal questionnaire survey. **Setting** West Sussex Primary Care Trust (PCT) from September to December 2006. **Subjects and methods** Questionnaires were sent to all dentists listed on the West Sussex PCT database, except those assumed not to make orthodontic referrals (n = 325). **Results** Two hundred and twenty-nine questionnaires were returned, representing a 70% response rate. Fifty-two percent of dentists in West Sussex correctly identified which type of orthodontic provider to refer three different malocclusions using picture tests. Twenty percent of dentists made correct decisions on the timing of referral for three different malocclusions using picture tests. IOTN is not routinely used by 76% of West Sussex dentists when making an orthodontic referral. **Conclusions** This study provides evidence that there is a need for postgraduate training or the development of referral guidelines to assist West Sussex dentists in making referrals for orthodontic treatment to the most appropriate provider at the most appropriate time. If dentists are to act as gatekeepers of orthodontic provision on the NHS there is a need to provide more support and education for them about the use of IOTN.

EDITOR'S SUMMARY

NHS orthodontic treatment, like all other areas of NHS dental care, underwent changes with the introduction of the new NHS dental contract in 2006. Orthodontic treatment was restricted to those patients with the most severe malocclusions as defined by the Index of Orthodontic Treatment Need (IOTN). In order for the new system to work successfully, it follows that dentists referring patients for orthodontic treatment should be familiar with the IOTN and its use. This paper by Jackson *et al.* sets out to investigate whether this is the case among dentists in West Sussex.

The test cases sent to the study dentists were designed to assess their ability to identify whether a case would benefit from orthodontic work and the type of provider, if any, that would be appropriate, and their ability to assess the correct timing of orthodontic referrals. They were also asked if they used the IOTN when referring patients. The results of the study were salutary: just over half of the respondents made correct decisions for all the cases in the question asking whether an orthodontic referral was appropriate, and only 20% made the correct decision for all the cases in the questionnaire on timing of referral. The IOTN was not routinely used by 76% of respondents, and 5% had never heard of it.

The results clearly suggest that West Sussex dentists require further training in the use of the IOTN and additional referral guidelines to assist them in making appropriate orthodontic referrals. It would be interesting to see if this was also the case for dentists nationwide. The authors mention in their answers to our questions (right) that orthodontic referral guidelines have now been developed locally and distributed to West Sussex dentists – a good illustration of how the results of targeted research can be used to improve the local situation. A similar study at a national level would show us whether UK-wide measures need to be taken to help familiarise dentists with the IOTN and help them refer orthodontic cases appropriately.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 207 issue 9.

Rowena Milan,
Journal Editor
DOI: 10.1038/sj.bdj.2009.991

IN BRIEF
- Provides a snapshot of orthodontic referral decisions made by GDPs in West Sussex shortly after the introduction of the new NHS dental contract.
- Many dentists made appropriate referral decisions about malocclusions best managed in primary or secondary care.
- The majority of West Sussex dentists were not familiar with, or did not regularly use, the IOTN when making an orthodontic referral.

RESEARCH

COMMENT

As a teacher of orthodontics I try to educate dental students about what can be achieved with contemporary orthodontic appliances when used by highly skilled and appropriately trained clinicians. However, I see my principal role to be training the general dental practitioners of the future to recognise a patient with a developing malocclusion and know when and where to appropriately refer them. I therefore found the results of this study to be somewhat depressing!

Only 20% of respondents to this case-based survey recognised the appropriate timing of referral for three cases as determined by the research team. There may be some mitigating circumstances for this. A single photographic image with some clinical information may not be a realistic substitute for the clinical examination of a real patient. In addition, practitioners might consider there to be other reasons for an orthodontic referral, such as to support their own ideas on a possible treatment plan, to confirm a low IOTN score or to reassure an anxious parent. These issues were not explored by this study, which concentrated on the clinical criteria.

The most disappointing outcome for me was that concerning the Index of Orthodontic Treatment Need. According to this study, 76% of practitioners were still not routinely using the Index to assess their patients and 12 participants, out of the total of 229, had not even heard of it. I understand that some might have graduated in a country where the IOTN is not routinely used (although 73% of respondents qualified in the UK); however, the Index was developed over 20 years ago and as far as I am aware it has received considerable publicity over the years. For nearly 15 years I have taught the importance of using it to weigh the risks *versus* the benefits of orthodontic treatment in individual cases and insist that all the undergraduate students at Sheffield undertake a practical exercise in its use. They are almost universally guaranteed to be asked a question about it in a formal assessment during the course. Once learned it is very simple and quick to use clinically.

There is a tendency to consider orthodontics to be a subject that should only be taught at the postgraduate level. I believe that this is a mistake. Although it is not possible to train a dental student to be competent to undertake orthodontic treatment when he or she qualifies, our aim, as teachers of undergraduates, should be that all dentists are competent in the diagnosis of malocclusion and appropriate referral. It looks like we still have considerable work to do to achieve this aim.

P. Benson
Reader/Honorary Consultant in Orthodontics, School of Clinical Dentistry, University of Sheffield

AUTHOR QUESTIONS AND ANSWERS

1. Why did you undertake this research?

Following implementation of the new dental contract in April 2006, commissioning of dental and orthodontic services was devolved from a national to a local level, bringing an increased interest from primary care trusts in referral patterns as a means of ensuring value for money. The new contract also brought restrictions in the provision of NHS orthodontic care to those patients considered to be most at need of orthodontic treatment, based on the Index of Orthodontic Treatment Need (IOTN).

We undertook this research to examine orthodontic referral decisions made by general dental practitioners (GDPs) in West Sussex to determine whether referrals were made to the most appropriate orthodontic provider at the most appropriate time, and to establish whether West Sussex GDPs were familiar with the use of the IOTN. It was envisaged that the results would provide evidence to develop local orthodontic referral guidelines, and evidence upon which to plan the IOTN training requirements in West Sussex.

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

Orthodontic referral guidelines have been developed locally and distributed to all West Sussex GDPs. IOTN calibration has been offered to all West Sussex orthodontic providers. A further study is now required to assess whether the referral guidelines are considered beneficial by GDPs, and whether there has been an increase in the number of appropriate orthodontic referral decisions.