

Summary of: Are general dental practitioners effective in the management of non-apnoeic snoring using mandibular advancement appliances?

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FULL PAPER DETAILS

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Objective This study assessed the effectiveness of general dental practitioners (GDPs) in the management of subjects with non-apnoeic snoring using a mandibular advancement appliance (MAA), following a one day training course. **Subjects and methods** Sixty subjects suffering from simple, non-apnoeic snoring were treated by 15 GDPs, in three hospital centres, using a monobloc mandibular advancement appliance design. All GDPs attended a one day training course prior to the study which covered theoretical and practical training in the use of mandibular advancement appliances. Snoring and level of disturbance were assessed using a questionnaire completed by their sleeping partner before and after a three month treatment period. Daytime sleepiness was assessed by the patients using the Epworth sleepiness scale questionnaire (ESS) before and after a three month treatment period. In addition, patients completed an outcome questionnaire, to assess side-effects experienced from the MAA. **Results** A success rate of 48% (95% CI 0.35, 0.61) was achieved in partner-assessed snoring and disturbance levels, following a three month period of MAA treatment. The median ESS score reduced from 9 to 7.5 (95% CI 0, 3). General dental practitioners experienced problems during protrusive bite registrations, with 10% being judged inadequate. **Conclusion** GDPs were not effective in the management of non-apnoeic snoring using a monobloc appliance after a one day training course. Further training and/or selection of a different design of appliance should be considered for GDPs to become highly competent in this area.

EDITOR'S SUMMARY

The general dental practitioner's remit seems to be ever-expanding, providing opportunities for dentists to take their practices into new and interesting areas, but also presenting challenges in terms of training, funding and time management. Dental sleep medicine and the treatment of snoring is one such area, and the increasing interest in the potential of GDPs to treat patients with non-apnoeic snoring is reflected in the recent pages of the *BDJ*: the current paper by Church *et al.* is the second to be published on this subject in the last month (see also 'Snoring and the role of the GDP: British Society of Dental Sleep Medicine (BSDSM) pre-treatment screening protocol'. *Br Dent J* 2009; 206: 307-312).

Church *et al.*'s article clearly highlights some of the barriers that are faced when introducing new treatments into general dental practice, in particular the issues of

training and poor practitioner response. The authors set out to investigate the effectiveness of GDPs in managing patients with non-apnoeic snoring, using a mandibular advancement appliance (MAA) after a one day training course. Despite inviting 258 GDPs to participate in the study, only 15 were both willing to take part and able to attend the training day. Although many factors may have been responsible for this low uptake, it does suggest that many practitioners were either uninterested in the area or interested but unable or unwilling to give up their time. Further, the practitioners that did take part achieved only a 48% success rate in their treatment after three months, suggesting strongly that one day's training in treating patients using the MAAs in this study is insufficient to enable GDPs to effectively manage patients with non-apnoeic snoring.

While the small sample size and the

other limitations stated by the authors must be taken into consideration, the wider implications of the findings are important. Encouraging the dental profession to become more integrated into healthcare as a whole and allowing dentists to use their expertise as part of multidisciplinary patient treatment are initiatives to be applauded. The results of this and similar studies, however, show that encouragement is not enough. More resources need be focused on *enabling* dentists to expand their practice, an issue that spans training, remuneration and the current practice model.

The full paper can be accessed from the *BDJ* website (www.bdj.co.uk), under 'Research' in the table of contents for Volume 206 issue 8.

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Journal Editor

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IN BRIEF

- Simple, non-apnoeic snoring affects 40% of the population.
- The effects of non-apnoeic snoring can cause significant daytime tiredness for the patient and their partner.
- Mandibular advancement appliances (MAAs) play an important role in the management of these patients and could be provided by the general dental practitioner after suitable training.

COMMENT

Treatment of diagnosed non-apnoeic snorers with mandibular advancement appliances is undertaken within orthodontic departments in secondary care. Increasing time and financial pressures, however, have led to debate as to whether this service could be provided by general dental practitioners (GDPs) within primary care.

This is a well designed study utilising treatment methods and outcome measures which are relevant and have been used successfully before. The study was undertaken within hospital units in order to provide support by orthodontists experienced in providing this care.

The authors had difficulty recruiting GDPs to undertake this study and unfortunately, I feel this may reflect the level of interest of GDPs for this subject. This did reduce the sample size markedly, which the authors have recognised. The success rate of 48% was surprisingly low as recorded by the patient's sleeping partner. Previous studies have suggested success rates of over 70%.

Reasons for this reduced success have been put forward by the authors and are justifiable. The appliance was a monobloc, which relied on accurate records for construction with no adjustments possible. However, 10% of the protrusive bite registrations taken by the GDPs were of too poor a quality to be useful. This could be overcome with a different appliance design or by extending the clinical training, although each clinician was given

supervision until they felt proficient.

To show how truly effective this treatment is by GDPs, the study should be repeated in primary care. However, I would suggest that the proper place for management of these patients remains within secondary care and within a multidisciplinary team. I feel this study confirms this view. Correct fitting and adjustment of any appliance initially is essential to gain patient confidence and the compliance required to achieve a result from these appliances. Although secondary care is under significant time and financial constraints, should the primary care trust (PCT) choose to fund treatment of this patient group, it should be within the most appropriate setting where treatment success can be anticipated.

This article is well worth reading, particularly by any GDP considering undertaking this treatment within their practice, or by secondary care teams in funding discussions with their PCTs.

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AUTHOR QUESTIONS AND ANSWERS**1. Why did you undertake this research?**

Non-apnoeic snoring is a common problem, which can have significant social and health effects for the patient and their partner. Management of these patients commonly includes interventions such as weight loss, alcohol restriction, sleep position training, nasal appliances and pharyngeal surgery. In addition, mandibular advancement appliances are frequently used. These appliances are frequently provided by orthodontic consultants within a hospital environment, however, management of these patients by general dental practitioners (GDPs) in a practice environment after appropriate screening may offer a cost-effective alternative to treatment within a hospital setting. This study was therefore undertaken to see how effective GDPs would be at providing this treatment.

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

This study, although assessing the effectiveness of general dental practitioners carrying out the treatment, was carried out in a hospital setting. The next stage would be to carry out a similar study in a practice situation, with increased numbers of general dental practitioners and patients. We would also aim to have an increased response rate to the questionnaires used. In addition, it would be interesting to look at different designs of mandibular advancement appliance. A design which allowed incremental advancement would hopefully reduce the errors associated with protrusive bite registration taking, which reduced the success rate of the current study.