

# Summary of: Treating patients with dry mouth: general dental practitioners' knowledge, attitudes and clinical management

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## FULL PAPER DETAILS

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**Aim** To assess primary care dental practitioners' knowledge, attitudes and clinical management of patients presenting with dry mouth. **Method** A convenience sample of 200 dentists working in primary care in an NHS Health Board in Scotland was obtained. A questionnaire to assess knowledge, attitudes and clinical management of dry mouth patients was sent to all dentists on the NHS primary care service inventory. Ethical approval was obtained. **Results** Two hundred questionnaires were sent to the participants and 114 were returned, giving a valid response rate of 58%. Fifty percent were woman and 80% worked in the general dental service. Seventy-nine percent had been taught about xerostomia as undergraduates but only 21% had postgraduate educational experiences of dry mouth. The majority correctly stated that patients with Sjögren's syndrome would have an increased risk of dental caries, oral candidosis, frictional oral ulcers and squamous cell carcinoma. Participants had positive attitudes with regard to the importance of treating dry mouth; that it was not a trivial complaint; it affected patients' quality of life and their general health. The dentists were not confident to manage dry mouth patients. Knowledge, attitudes, confidence and intention to treat were affected by gender and type of primary care practice. Thirty-two percent of the variance of the intention to provide treatment was explained by working in the salaried dental service (SDS), confidence and attitudes regarding severity of the condition. **Conclusions** Dentists working in the SDS had positive attitudes and increased confidence which were related to postgraduate educational experiences. Education at both undergraduate and postgraduate levels should be supported by clinical exposure to patients in order to improve dentists' confidence and competence to manage xerostomia and its complications.

## EDITOR'S SUMMARY

Collectively we have a lot for which to be grateful to Dr Henrik Sjögren (1899–1986), a Swedish ophthalmologist who first described in 1933 the syndrome now named after him. The gratitude extends beyond his identification of the condition to the fact that he has such a memorable name. Generations of students and practitioners should be appreciative of the fact that he was not called Erikson or Peterson, as, with due respect to doctors so called, the ease of connection with Sjögren and dry mouth is far more immediate. The only downside from a writer's viewpoint is having to pause to insert the character 'ö' whilst typing it.

There is a point to this apparent trivialisation of the great man's surname, for although we all remember it and connect it with xerostomia it is clear from this

research work that we do not then either remember, or possibly we do not know, what to do next in terms of treatment. As is pointed out here, treatment is neither easy nor often particularly effective but that should not blind us to attempts to try and ease the discomfort which dry mouth causes our patients, and an increasing number of them as the population ages and takes a greater range of medication.

This study is of a type which should be applauded in that it represents a logical progression of development from an observation – the variability of dental management of xerostomic patients – through implementation of a method to investigate why, to a conclusion as to the cause and to proposals for improvement.

Clearly some ongoing review needs to be undertaken in relation to education of clinicians, and indeed the public, on the

importance of this condition for oral and general health and a raising of awareness of the possible treatment options. This is almost certainly another of those areas in which greater cooperation between the dental and medical professions, as well as, for example, pharmacy staff, could help reap many benefits for the dry-mouthed patients for whom the name Sjögren may mean nothing and, in the absence of saliva, be more difficult to pronounce.

The full paper can be accessed from the *BDJ* website ([www.bdj.co.uk](http://www.bdj.co.uk)), under 'Research' in the table of contents for Volume 211 issue 10.

Stephen Hancocks  
Editor-in-Chief

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**IN BRIEF**

- Shows the benefit of greater experience of dental education and clinical exposure on dentists' confidence to provide appropriate clinical management of xerostomic patients.
- Postgraduate dental education provided a benefit with regards to practitioner knowledge, attitudes and intentions to provide appropriate clinical management for xerostomic patients.

**COMMENTARY**

General dental practitioners (GDPs) are the front line of dental care in the community. As such, their knowledge, beliefs and practices in respect of a given condition are important, because they shape how that condition is detected, managed and prevented among users of dental care. Dry mouth is a condition which is surprisingly common, affecting about 10% of the working-age adult population, and at least 20% of older adults. People with dry mouth have poorer oral health-related quality of life, and they can have problems with dental caries, halitosis, and denture retention, among other things.<sup>1</sup>

Given both the impact of dry mouth and GDPs' key role in the management of patients with the condition, this survey by Abdelghany and colleagues is both timely and important. It shows that GDPs in that area of Scotland are well aware of the importance, consequences and impact of dry mouth, but that there are deficiencies in their knowledge of (and confidence in) its management. The latter should come as no surprise; dry mouth is a very difficult condition to treat effectively. Identifying the primary cause (or causes) of the condition is critical, as is determining the exact nature of the complaint itself. The authors quite rightly emphasise the need to ensure adequate clinical exposure to such patients in dentists' education, whether undergraduate, postgraduate or continuing. Moreover, conducting high quality ongoing research into dry mouth is

important, so that clinicians and clinical teachers alike are making decisions based upon a full understanding of its nature, associations, antecedents and natural history.

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1. Hopcraft M S, Tan C. Xerostomia: an update for clinicians. *Aust Dent J* 2010; **55**: 238-244.

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

We observed over the years that the dental management of xerostomic patients in primary dental care was variable. Although some patients were diagnosed and managed effectively by their dentist, other patients with a long history of xerostomia were not recognised, and, despite their obvious signs and symptoms, they suffered from longstanding oral discomfort and rampant dental caries. This research was undertaken to investigate if the reason for such variability in the clinical management of xerostomic patients was due to factors such as knowledge, including undergraduate and postgraduate education, clinical experience, attitudes and confidence within general dental practitioners. It was hoped that if the barriers to the provision of appropriate clinical management of xerostomic patients could be identified, solutions could be proposed to overcome these barriers.

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

We would next like to replicate this study in a population of other primary healthcare practitioners. Clinical observations suggest that there is wide variation in knowledge and attitude to patients presenting with xerostomia amongst general medical practitioners and pharmacists. These observations require investigation to obtain an accurate assessment of management of xerostomic patients in primary care and to identify barriers to optimal management of these patients.