

# A commentary on *Temporomandibular disorders: priorities for research and care* – bridging from the US to the UK

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## Key points

The report on TMDs from the US National Academy of Medicine is a seminal book describing the problems that individuals with TMDs confront for diagnosis and treatment.

The situation in the UK, according to UK colleagues, is similar with regards to challenges.

The UK has implemented a number of initiatives to provide better diagnosis and treatment; identifying these excellent efforts in relation to the disease challenges is valuable.

## Abstract

In January 2019, the United States National Academy of Medicine initiated a comprehensive study of the status of current knowledge and clinical practices associated with temporomandibular disorders (TMDs). The National Academy of Sciences, which includes the National Academy of Medicine, was chartered by the US Government in the late 1800s as a non-profit institution working outside of government in order to provide unbiased, objective opinions on matters including healthcare. In this brief paper, we will discuss the open access 2020 report *Temporomandibular disorders: priorities for research and care*, available online. While the main focus of this report was the situation of TMDs in the US, the evidence base, authorship, expertise and literature scope was international and the findings therefore are at least in part generalisable to and important for the UK.

The authors of this commentary were directly involved in the National Academy process, with RO a panel member, JD a consultant and CG one of 15 reviewers of the draft report. There was a wide variety of clinical and research fields involved in gathering the evidence and constructing the report. In addition, there was extensive involvement from affected patients with TMDs and their families, which is critical because their perspective is typically omitted in textbooks and professional consensus meetings.

## Introduction

The *Temporomandibular disorders: priorities for research and care* report<sup>1</sup> was published in March 2020, just as the COVID-19 pandemic began and consequently received little attention at that time. The purpose of this paper is to highlight, from the published report, major points of relevance and their applicability for the readership of the *British Dental Journal*. In general, the document strongly indicates that the

current dental-focused treatments for temporomandibular disorders (TMDs) must be re-conceptualised toward a multidisciplinary, interprofessional team approach, involving specialists within the broader healthcare community.<sup>2</sup> This conclusion parallels multiple publications by Aggarwal, Zakrzewska and Durham, within the UK, all calling for a more multidisciplinary, biopsychosocial and holistic approach to the care of those living with TMDs and other types of persistent orofacial pain.<sup>3,4,5,6</sup>

Two recommendations (#5 and 6) aim to improve the quality of care for TMD patients through: improved disease risk assessment and stratification; diagnostics; and dissemination of clinical practice guidelines and metrics of care. Acting as the catalyst to advance appropriate care for TMD patients, the global patient advocacy agency, the Temporomandibular Joint (TMJ) Association (TMJA), developed a patient-centred, public-private collaboration among the federal government, scientists,

clinicians, dentists, advocates, manufacturers and others. A Coordinated Registry Network (CRN) has been developed to gather real-world evidence data on patients' health status and care in several linked registries, to be used in healthcare decision-making and post-market monitoring of approved TMJ implant devices and other treatments. Over time, the CRN will provide a sufficiently large enough dataset to be used in determining risk assessments for various TMD treatments. The ultimate goal is establishing clinical guidelines for care of patients suffering from TMDs based on robust and large datasets. There is UK involvement in this process and an ultimate goal of the registry is to be global in nature.

Further recommendations (#7–10) are focused on improving TMD patient treatments and propose to develop 'centres of excellence for TMDs and orofacial pain treatment'. These proposals are similar to calls from UK-based researchers for similar centres working in a hub and spoke fashion within the UK.<sup>4,7</sup> The

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need to improve professional education and expand specialised continuing education for healthcare providers is demonstrated within the data and narrative of the recently published NHS England's *Getting it right first time report into hospital dentistry*,<sup>8</sup> which contains starting points of how to help reduce barriers within primary care to managing TMDs. To help with interprofessional models of care, the TMJA has established an international working group that is exploring ways to develop a new multidisciplinary model of TMD care, involving expertise across medicine, dentistry, nursing, physical therapy, psychological therapies and other relevant areas of healthcare. Similarly, Durham and Ohrbach had previously noted the needs for improved dental education pertaining to these complex disorders.<sup>9</sup> In the UK, there is also now a National Orofacial Pain Alliance based within the National Institute for Health and Care Research Clinical Research Network structure, which draws together expertise in clinical science and research, chaired by Professor Tara Renton (oral surgery and pain, King's College), with deputy chair Dr Chris Penlington (clinical psychology, Newcastle University).

One specific recommendation (#11) within the report highlights the importance of patient education and awareness about TMDs and reducing the stigma of disease. The recommendation suggests that the TMJA, American Dental Education Association, TMJ Patient-Led RoundTable, American Chronic Pain Association and American Academy of Orofacial Pain collaborate with other stakeholders (for example, the American Medical Association Education group and the National Institute of Dental and Craniofacial Research Office of Communications and Health Education) to develop educational

materials for TMDs, based on the current understanding of this disorder as summarised in the National Academies of Sciences, Engineering, and Medicine report. These materials will include: brochures, videos and virtual educational workshops addressing many aspects of TMD management and care; access to quality treatments; and approaches to stigma reduction. Importantly, ongoing projects within the UK have already anticipated these same needs as in the US and the outcomes will be complementary to those envisioned in the US. For example, see the orofacial pain website ([www.orofacialpain.org.uk](http://www.orofacialpain.org.uk)), as well as work on self-management by Aggarwal, Penlington and Durham and colleagues,<sup>10,11,12,13</sup> including freely available videos to explain TMDs to a patient (explanation of TMD and self-management's role in TMD),<sup>14,15</sup> that have been developed with patient and public involvement.

## Conclusion

In conclusion, the National Academy of Medicine report represents a watershed for the dental profession and will help drive forwards better TMD research and patient care, which will need to be underpinned by continuing education, professional development and contract reform, to help remunerate appropriately for primary care management of TMDs in the UK.

### Ethics declaration

The authors declare no conflicts of interest.

### Author contributions

Justin Durham drafted the initial manuscript, Richard Ohrbach revised, and Charles Greene did final editing.

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## Correction to: The perceptions and attitudes of qualified dental therapists towards a diagnostic role in the provision of paediatric dental care

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Author's correction note:

Research article *Br Dent J* 2022; DOI: 10.1038/s41415-022-4393-5.

When initially published, there was an error in the author list. This should have read: Joshua D. D. Quach, Kristina Wanyonyi-Kay, David R. Radford and Chris Louca

The authors apologise for any inconvenience caused.