Improving Orofacial Pain Management in Australia and New Zealand

A discussion paper by the Australian and New Zealand Academy of Orofacial Pain

The Australian and New Zealand Academy of Orofacial Pain (Academy), established in 1986, is the peak body in the field of Orofacial Pain in Australia and New Zealand. The Academy consists of dental specialists, dentists, physiotherapists and other health practitioners and academic staff sharing a strong professional interest and clinical focus towards treating patients suffering Orofacial Pain and Temporomandibular Disorders.

The Academy is dedicated to advancing scientific knowledge about Orofacial Pain and promoting evidence-based management. The Academy achieves this by conducting scientific meetings and education programs and supporting members in their clinical, education and research endeavours.

The Academy is a member of an international consortium including American, European, Asian and Latin Academies of Orofacial Pain. The various Academies conduct regular meetings and collaborate for a triennial "International Conference on Orofacial Pain and Temporomandibular disorders". The highly regarded Journal of Oral and Facial Pain & Headache is co-sponsored by these Academies and complements other scientific journals focusing on pain and related disorders.

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Executive Summary

Orofacial pain encompasses several complex painful conditions involving the mouth, face, head, and adjacent regions. The oral and facial structures are closely associated with essential functions of eating, breathing, communication, sight, and hearing, and form the basis for appearance, self-esteem, and personal expression. Therefore, persistent pain in this area can deeply affect an individual's health both physically and emotionally.

Orofacial pain and associated disorders are very common, and recent reports have concluded that there is an urgent need to improve the lives of millions of Australasians living with and impacted by pain. Orofacial pain results in enormous costs to both the individual and the community. Indeed, a recent international study revealed more adults miss work because of head and face pain than any other site of pain.

The diagnosis and management of these conditions require specialized knowledge and a sophisticated multidisciplinary approach to treatment well beyond that provided during medical and dental training. Although some exposure to Orofacial Pain occurs during the training of existing dental specialties, it is inconsistent and never the primary focus. Consequently, few clinicians attain the knowledge and expertise required to effectively treat the range of chronic Orofacial Pain conditions.

As access to appropriate care and treatment needs of those suffering chronic Orofacial Pain are not being met, the current health care models need to be altered. Accordingly, closely following curricula developed by the International Association for the Study of Pain and the American Academy of Orofacial Pain, the Australian and New Zealand Academy of Orofacial Pain recently collaborated with the University of Sydney to develop a Master's level postgraduate course in Orofacial Pain designed to be incorporated with pain management clinical training.

This discussion paper promotes the case for creating a specialty in Orofacial Pain.

Such a specialty would:

- Support and expand the historical and current role of Dentistry in the rapidly evolving field of Pain Science and provide leadership in this field.

- Improve access to care and protect the public against non-evidence based and inappropriate treatment by health care practitioners that have not been trained in recognized University based and accredited courses.

- Enable patients, health care providers and insurers to identify practitioners with knowledge and experience in managing complex chronic Orofacial Pain, and to whom patients not responding to basic therapy can be referred.

- Promote a future supply of accredited Orofacial Pain specialists to address the likely increasing demand for services in this field.

- Improve the current education and training about chronic Orofacial Pain to all dental disciplines, and to other health professionals.

- Align with international jurisdictions that have already formally recognised Orofacial Pain as a specialty of Dentistry.

- Align the dental profession with Australian and New Zealand medical professions that have formally established Pain Medicine specialties.

A stakeholder questionnaire is at the end of this discussion paper
Please respond to the questionnaire either by email (rdelcanho@gmail.com) or the online survey

What is Orofacial Pain and what is its impact?

The field of Orofacial Pain consists of the diagnosis and management of acute and chronic pain and related disorders in the oral, facial, and head regions and its impact on the individual, family and friends and society at large. This pain includes toothache and other oral pain, jaw muscle and joint pain (temporomandibular disorders), nerve pain (orofacial neuropathic pain), headache, and related disorders[1] (see Table 1).

TABLE 1. Orofacial Pain and related conditions
Adapted from International Classification of Orofacial Pain[1]

1. Orofacial pain attributed to disorders of dentoalveolar and anatomically related structures
2. Myofascial orofacial pain
3. Temporomandibular joint pain
4. Orofacial pain attributed to a lesion or disease of the cranial nerves
5. Orofacial pains resembling presentations of primary headaches
6. Idiopathic orofacial pain
7. Primary headache disorders
8. Pain secondary to orofacial cancer and AIDS
9. Oral motor disorders
10. Sleep related dental disorders

Orofacial pain and associated disorders are common and complex. Most of us will suffer pain in this region multiple times throughout our lives. Persistent or chronic pains, which last more than 3 months, are often characterised by significant disability or emotional distress[2,3].

The orofacial structures have incredibly dense, complex innervation and vascularity, are functionally complex, and play a major role in identity, emotional expression, and lifesaving reflexes. These features contribute to the high prevalence of pain and related disorders, which is estimated at between 29-38% of the general population (See Table 2).

This is supported by assessment of 725 staff and students at the University of Sydney (mean age 22-yrs; 57% female), in which more than one in four were diagnosed with

painful temporomandibular disorders, with the pain lasting, on average, for more than 5 years[4].

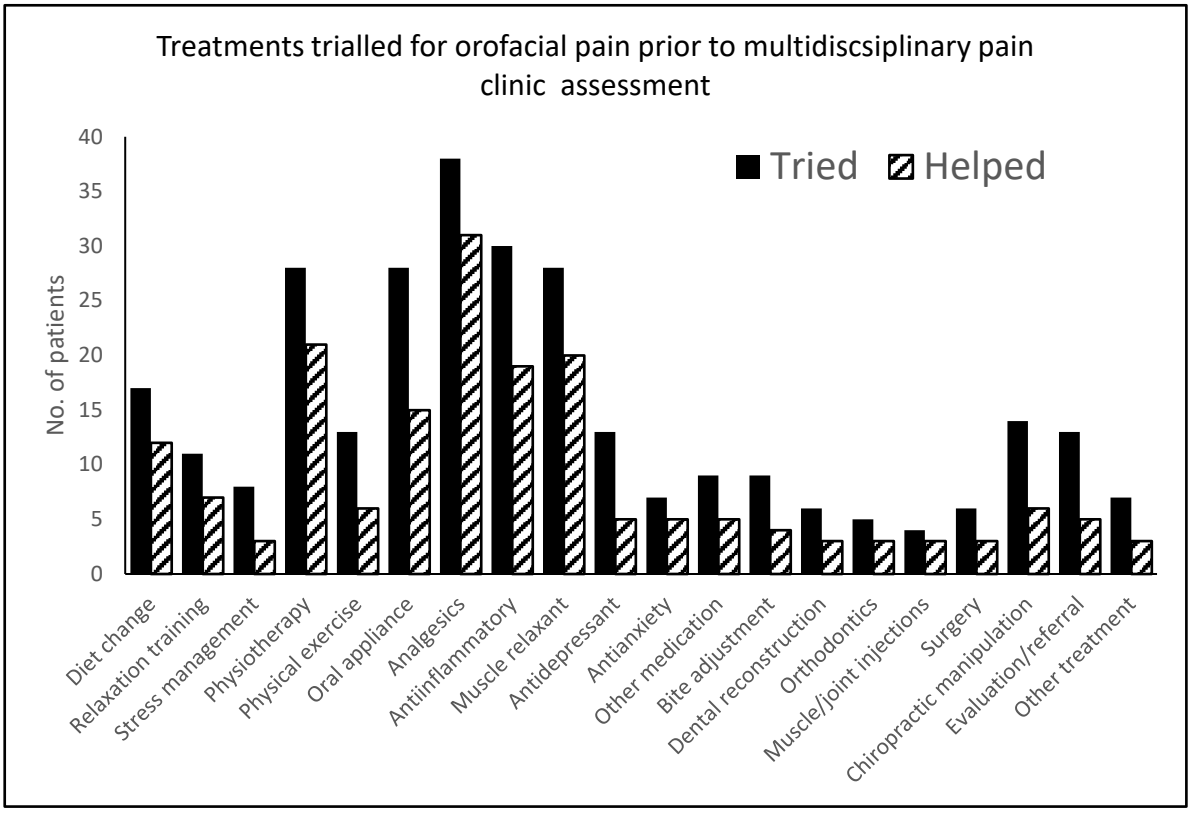
TABLE 2. Prevalence of Orofacial Pain and related disorders (Estimated prevalences collated from references 3-11)	
Orofacial Disorders	**Prevalence**
Temporomandibular disorders	5-7%
Orofacial pain disorders (burning mouth, neuropathic, atypical pain, neurovascular)	2-3%
Headache disorder (tension-type headaches, migraine, mixed, cluster)	15-20%
Orofacial sleep disorders (e.g. sleep apnoea, snoring)	3-4%
Neurosensory and chemosensory disorders (e.g. taste, paraesthesias, numbness)	0.1%
Oromotor disorders (e.g. occlusal dysaesthesia, dystonia, dyskinesia, bruxism)	4%
Total estimated prevalence in the general population	**29 - 38%**
Total estimated adult population in Australia with Orofacial Pain and related disorders (based on 20 million adult population)	**6.8 million**

The impact of Orofacial Pain is significant. In Australia, pain intensity ratings of chronic Orofacial Pain conditions have similar or greater pain ratings to other chronic pain conditions, such as back pain, cancer pain and arthritis[12]. In the USA more adults miss work from head and face pain than any other site of pain[5]. The significant suffering from Orofacial Pain is due to a number of factors. Firstly, oral and facial structures have a high number of nerves transmitting sensations back to the brain, where their regional representation is out of proportion to other areas of the body. Secondly, the orofacial structures are incredibly important as they are involved in functions of eating, communication, sight, smell, hearing and balance. Thirdly, this region contributes to our identity by playing an important role in our appearance, emotional expression, and intimacy. Consequently, persistent pain in this area can deeply affect an individual psychologically as well as systemically. The biological, psychological and social importance of orofacial structures is likely an important reason for the complex, persistent and disabling pain conditions affecting the area.

How is Orofacial Pain currently managed in Australia?

There is no consistent care pathway for Orofacial Pain patients. They typically initially consult with their general medical or dental practitioner. It is then not unusual for patients with persisting pain to consult with multiple specialists and other health professionals and trial multiple treatments. Worryingly, this can include treatments where benefits and risks have not been assessed appropriately or where there is no evidence-base, including drugs of dependence such as opioids and benzodiazepines, and invasive and irreversible dental or surgical procedures. Such management contributes to the significant suffering experienced by many pain patients.

This is supported by a clinical audit of a large multidisciplinary pain service in NSW in which Orofacial Pain patients, on average, are reported to have lived with pain for 11 years and have consulted 12 health professionals. The pain affected daily activities and work, and impacted relationships, sleep, life enjoyment, and patients suffered from moderate to severe depression and anxiety[13].



The above figure outlines treatments trialled by patients (chart review of 60 patients) suffering with Orofacial Pain, prior to assessment at a dedicated pain management service in 2010 at Westmead Hospital, NSW Australia[13]. These treatments were associated with varying levels of perceived benefit (although it is noteworthy these patients were still seeking pain management), and many have a limited evidence-base, are costly and can result in adverse health complications. It highlights the burden of pain and suffering of Orofacial Pain conditions, and the difficulty patients in Australia experience receiving appropriate diagnoses and management of these conditions.

How is Orofacial Pain Managed Overseas?

Many countries have recognized the need for high quality evidence-based management of Orofacial Pain. The current limited practical training in caring for patients with Orofacial Pain within both medical and dental training programmes results in most health care providers preferring to refer these patients to a specialist. A USA based survey of 405 health care professionals found that 95% either refer, or would like to refer, complex chronic Orofacial Pain patients to a specialist. The study found over 90% of general dentists and dental specialists devote less than 5% of their time to the treatment of Orofacial Pain disorders. Indeed, only between 4 and 22% of the specialists offered any treatment at all for chronic Orofacial Pain conditions[14]. The lack of accessibility to adequate care and the diversity of dental disciplines involved in diagnosis and management resulted in increased pain and financial burdens for these unfortunate individuals. As occurs in Australia, most Orofacial Pain patients in the USA consult multiple clinicians and suffer with chronic pain, on average, for 4.2 years prior to an initial consultation with a clinician with expertise and training in Orofacial Pain[14]. It is clear that an unstructured system of care without dedicated specialist training in Orofacial Pain does not provide the standard of care necessary for this vulnerable population, whether in Australia or overseas.

In recognition of these issues, Orofacial Pain was granted specialty status in the USA in 2020. Similarly, other countries including Sweden, Brazil, Costa Rica, Panama, Korea, Netherlands, and Japan have designated Orofacial Pain as an advanced field of dentistry that meets the requirements of a separate specialty[14].

Why current Orofacial Pain management models are inadequate?

Whilst training in Orofacial Pain management is provided at both the general dental and specialist levels[15], there are issues that limit this training's scope and utility.

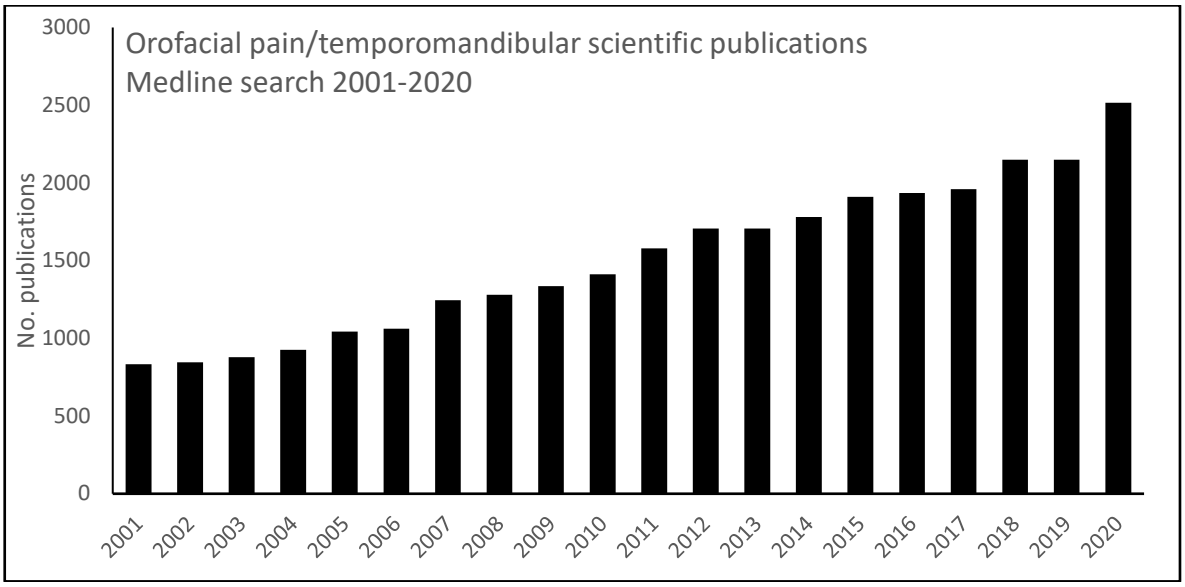
Firstly, training within separate disciplines necessarily focuses on attaining competency in the common dental procedures fundamental to the general or type of specialist dentist. Undergraduate dental students typically learn about acute Orofacial Pain management but only a brief overview of chronic pain management. Dental specialist trainees receive further education and training about Orofacial Pain, supplemental to the primary or other areas of their individual specialty discipline.

Secondly, and underpinning the first issue, insufficient time is allotted for comprehensive chronic pain management education and training as it competes with other essential disciplinary education and training needs of the general dental practitioner and each specialty group.

Thirdly, pain education is frequently taught by specialist discipline staff who focus understandably on that specialty's management philosophy, rather than on an overarching modern pain management philosophy.

Without adequate curriculum time, standardized curriculum content, it is not surprising that only limited numbers of general dental practitioners and dental specialists have been taught to diagnose and manage chronic pain patients, and that diagnoses, and treatment recommendations vary between existing dental specialist disciplines. Consequently, patients can become confused and frustrated, as they may have limited access to care (see for example oral medicine survey[16]) and are at risk of receiving non-evidence based, harmful, invasive, and irreversible treatments.

To summarise, the overall assessment, diagnosis, and treatment of patients with chronic Orofacial Pain and related disorders has not been adequately taught, coordinated and managed.



As shown in the figure above, the scientific literature related to Orofacial Pain is substantial and rapidly expanding. Several peer reviewed scientific journals are dedicated to Orofacial Pain. Quite simply, dental specialists in other disciplines cannot keep up with this, in addition to the literature of their own specialty. The increasingly vast knowledge base of pain science, together with the high prevalence and impact of Orofacial Pain, supports recognition of a specialty to ensure up-to-date and timely patient care across Australia, and provide expertise for education and further pain research.

How does the Australian Medical Profession manage Chronic Pain?

Orofacial Pain parallels the burden of general chronic pain in Australia. In the March 2019 report – The Cost of Pain in Australia - it was noted that chronic pain pervades all levels of our society; it can fundamentally change the life trajectory of a young Australian or impose disability on a previously healthy older Australian[17]. This report found 3.24 million Australians are living with chronic pain, and many are debilitated with a reduced quality of life, including impaired work, family and social activities, and sleep. Furthermore, this report estimated that the cost of chronic pain exceeded $80 billion and concluded that there is an urgent need to improve the lives of millions of Australians living with pain. The Federal Government provided $6.8m funding to develop the "National Strategic Action Plan for Pain Management"[18]. In recognition of the severity and impact of chronic pain, and the unmet need for modern management of chronic pain, the Faculty of Pain Medicine

was established in 1998 by the Australian and New Zealand College of Anaesthetists in conjunction with other medical specialty colleges[19]. Whilst several medical specialties managed pain conditions (e.g., general practice, anaesthesia, neurology, palliative medicine, rheumatology, surgery), none could provide the breadth and depth of a pain management specialty to manage the large burden of chronic pain in Australia. The Faculty formulated curricula and accredited training programs, and in 2005 a specialty of Pain Medicine was recommended by the Australian Medical Council, and accepted by the Minister for Health and Ageing.

What is the solution?

This Academy considers that the status quo cannot continue. The current Orofacial Pain management relies on care from individual general and specialist dental, medical and other health practitioners who may or may not have had further pain education and training, The variability and lack of cohesion in educational standards is reflected in the current sub-optimal outcomes in Orofacial Pain management discussed above. Simply put, maintaining the status quo continues to risk patient and community wellbeing.

Efforts to date including upskilling clinicians with continuing education, patient care by existing dental specialties and patient advocacy have not substantially improved the problems. Australia performs well on the international stage in Orofacial Pain research, and this needs to be replicated in clinical management through leadership that can appropriately direct and manage patients, clinicians, and community.

The Academy proposes that a clinical specialty in Orofacial Pain solves the issues facing Australia and New Zealand. It will provide individuals with clear, dedicated and evidence-based Orofacial Pain management strategies. It will improve the understanding of evidence-based Orofacial Pain management by dental and other health practitioners and the broader community. Furthermore, it will provide leadership in the clinical field and help promote and integrate education and research. It would also align with, and provide valuable learnings from, the development of international best practice (e.g. Brazil, Korea, Netherlands, Sweden, USA), who have already developed such specialties).

In 2019, the Academy, in conjunction with the University of Sydney, launched a postgraduate degree in Orofacial Pain[20]. This programme satisfies the Australian Qualifications Framework level 9 criteria ensuring graduates at this level will have specialised knowledge and skills for professional practice. Furthermore, it could form the basis of the Dental Board of Australia and Dental Council (New Zealand) competencies expected of applicants for specialist registration.

Where to next?

This discussion paper is being distributed to stakeholders that have an interest in the issues. These include health care practitioners (including dental Specialist Academies, various dental, medical and other professional organisations closely involved with Pain, and relevant pain patient advocacy groups. Once responses have been gathered and assessed, the Australian and New Zealand Academy of Orofacial Pain plans to further develop a specialty submission to the Dental Board of Australia for recommendation to the Council of Australian Government Health Council and Minister for Health for approval.

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Improving Orofacial Pain Management– Stakeholder questionnaire

These questions accompany the discussion document, *Improving Orofacial Pain Management in Australia*. In this questionnaire, "Orofacial Pain" refers to both pain and related disorders in the orofacial region.

Please respond either to rdelcanho@gmail.com or via the online survey

1. Are you responding on behalf of a stakeholder group or is this an individual submission? Please list the stakeholder group if applicable, and your name.

2. Do you think that there is a significant problem in the Australian and New Zealand communities with the recognition and management of Orofacial Pain?

3. Do you feel that there are enough specifically trained practitioners to manage the burden of Orofacial Pain in the Australian and New Zealand communities?

4. From your perspective, who manages complex/chronic Orofacial Pain patients?

5. Is the level of training in current specialties adequate to manage the burden of Orofacial Pain in Australia and New Zealand?

6. Is there a need for a dedicated training programme in multidisciplinary Orofacial Pain management?

7. Should there be a specific specialty field for the management of Orofacial Pain?

8. Do you have other comments?