What Patients Can Expect from Non-Dental Healthcare Providers

By

Charles S. Greene, BS, DDS

Andrew E. Bertagna, DMD Candidate (2019)

Corresponding Author:

Charles S. Greene, DDS
Clinical Professor Emeritus
Department of Orthodontics (M/C 841)
UIC College of Dentistry
801 S. Paulina St. – Room 131
Chicago, IL 60612-7211
cgreene@uic.edu
847-525-3004

Statement of Clinical Relevance (REVISED)

Seeking care for TMDs from non-dental healthcare providers can be risky for patients. This paper provides information on the variety of treatments being offered to TMD patients by non-dental healthcare providers to assist dentists in educating their patients.
Abstract (200 words)

The dental profession has long been the primary source for clinical management of patients with temporomandibular disorders (TMDs). However, patients with a facial pain problem may seek diagnosis and/or treatment from other healthcare providers. These providers may be physicians or other doctoral-level practitioners, or they could be members of various allied groups such as physical therapists or occupational therapists. However, little has been written about what patients might experience if they seek out care on their own outside of the dental profession.

This paper reports the results of an internet survey of non-dental doctoral and allied health professionals to learn what they might offer to potential TMD patients. The official organizational websites for each group as well as websites of individual practitioners in each group were reviewed. Most of the official websites had little or no information about TMDs, but some members of every group surveyed were offering to treat TMD in their offices. The variety of treatments being offered went far beyond the boundaries of appropriate TMD management in the 21st century. These results are presented with a critical discussion of each concept or practice, and advice for both dentists and patients to deal with this situation is provided.
Seeking Treatment for TMDs:
What Patients Can Expect from Non-Dental Healthcare Providers

INTRODUCTION

Temporomandibular disorders (TMDs) are a group of clinical problems that involve the musculoskeletal structures of the masticatory system, including the muscles of mastication, the temporomandibular joints (TMJs), and associated tissues\(^1\). Clinically, TMD problems can involve concomitant pathologies of the TMJ complex, including the articular disc, the condyle and other intra-capsular structures, as well as the surrounding myofascial and neurovascular tissues\(^2,3\). Pain can be a common symptom associated with TMDs, and these disorders are quite common in the general population. Depending on which epidemiologic studies are reviewed, the numbers of signs and symptoms associated with TMDs range between 40% and 60% of the general population\(^4\). However, careful analysis of such studies has shown that the numbers of patients requiring professional TMD treatment are reported to be in the range of 10-15%, while only about 5% seek treatment\(^5,6\).

Traditionally, TMDs are managed by dentists and dental specialists who should possess knowledge about diagnosis and treatment of these disorders, and therefore the dental profession is generally regarded as the most competent health professional group to manage such problems. However, even for well-trained dentists, establishing the etiology of these disorders can be elusive due to their multifactorial nature\(^7,8\), and therefore their management can be challenging. In addition, recent research has shown that many TMD patients are suffering from other co-morbid pain disorders\(^9,10\), and they also may be experiencing psychological stress and anxiety related to their pain condition, especially if it has become chronic\(^11,12\).

To further complicate matters, TMD patients seeking care for such problems within the dental community may find three different approaches to their management, depending on the concepts advocated by the dentist they consult with. As described extensively in the dental literature\(^13-15\), some dentists still are following a traditional occlusal/mechanical viewpoint, while others may be following the newer biopsychosocial model; the first group is likely to utilize bite-changing and jaw-repositioning procedures, while the second group will generally provide conservative
medical and orthopedic treatment accompanied by psychological support techniques. A third group of dentists (usually oral surgeons) may be inclined to utilize injection techniques, intra-capsular procedures, and even total joint replacements.

While some TMD patients may get positive results from the treatment they receive, others will not. It is well known that a certain percentage of patients will be refractory to typical dental, behavioral and pharmacological management methods; and if they have received irreversible therapies, those negative outcomes are likely to be even worse\textsuperscript{1,8,9}.

Therefore, it is not surprising that many dentists and their patients might try to seek care from other kinds of healthcare providers, and in some instances the patients will elect to pursue various non-dental therapeutic options. This treatment-seeking behavior often occurs without the knowledge of the patient’s dentist, so the possibility of finding unorthodox healthcare providers or practices should be of some concern. Also, in some cases dentists may want to refer patients to one or more of these non-dentist practitioners, so it could be useful to know what kinds of services those people might provide.

In this paper, we report the results of a Web search for healthcare providers who might offer to manage TMD conditions in their practices. This search originally was conducted as part of an ongoing project of the U.S Food and Drug Administrations (FDA – TMJ Patient Round Table), which seeks to establish what patients can expect to find when seeking treatment for TMDs. Thus, the purpose of this paper is to better inform dentists about the myriad of non-dental health care professionals claiming to manage TMDs, and to alert them as to what kinds of treatment options might be offered to their patients.

**METHOD**

A list was developed of various non-dental medical and allied health professionals who might provide professional care for a TMD patient, either upon referral from dentists, or independently. This list was based on a combination of patient reports and the senior author’s experiences over nearly 50 years. The medical groups included doctoral-degree practitioners from several well-known organizations such as osteopathic physicians, as well as a few that may be less well known. The allied health professionals included many familiar types of practitioners
such as physical therapists, as well as several types that may be less well known. The list of
doctoral-degree practitioners included allopathic physicians (MD), osteopathic physicians (DO)
chiropractors (DC), naprapathic doctors (DN), and naturopathic doctors (ND). While physical
therapists in the USA currently are required to obtain a doctoral degree (DPT), they are not
regarded as physicians. Although they may see patients initially for a diagnostic workup, they
also are required to get a prescription for services from medical or dental professionals in order
to continue providing services. The list of other allied health professionals included occupational
therapists (OT), acupuncturists, craniosacral therapists, myofunctional therapists, massage
therapists and oriental medicine practitioners; none of them except for OT’s are required to
collaborate with physicians or dentists.

The initial Web search was targeted at the official websites of each practitioner group as well as
any other well-known affiliated organization (e.g., The American College of Physicians and The
American Medical Association for allopathic physicians). Official websites of individual medical
specialties (e.g., orthopedics, rheumatology, neurology) were also searched. Using various search
terms such as “TMD”, “TMJ”, “Temporomandibular disorders,” “Temporomandibular joint”,
and “TMD management,” we looked for official statements or for published articles that
indicated their professional interest in these disorders. In addition, we perused their webpages for
any statements about TMD-related cases or legal disputes within their field. If there were no
relevant statements on their official websites, we then conducted a Google search of practitioner
websites to couple the name of the professional category (e.g., chiropractors) with one of the
TMJ search terms. As shown in Tables 1 and 2, this led to some surprising results, because there
were many individuals or groups of private practitioners in every discipline we looked at who
were offering diagnostic and treatment services for TMD patients.

INSERT TABLE 1 AND TABLE 2 HERE

RESULTS

The results from our Web search of organizational websites revealed that only a small number of
professional groups have any kind of statements about the management of TMDs on their official
web pages (see Table 1). For example, neither the American Medical Association nor the
American College of Physicians had anything posted on this topic, but the American Academy
of Family Physicians (http://www.aafp.org/afp/2015/0315/p378.html) did have an article posted on their website entitled “Diagnosis and Treatment of Temporomandibular Disorders.” This article serves as the Academy’s recommended best practice guideline for TMD management by a general practitioner. Their information was remarkably current and in line with the best practices as described in the current TMD literature. Regarding treatment, the article said: “Most patients improve with a combination of noninvasive therapies, including patient education, self-care, cognitive behavior therapy, pharmacotherapy, physical therapy, and occlusal devices.”

The American College of Rheumatology has a resource page accessible to members containing a letter template for use in influencing insurance companies to cover MRIs for TMJ arthritis patients (access is limited to members). TMD is also listed as a possible concomitant disorder presenting in patients with fibromyalgia. There are no statements or adopted articles on management of TMD and the profession does not claim to treat TMD.

The American Academy of Otolaryngology-Head and Neck Surgery (AAO-HNS) has a patient-centered health information page which describes the TM joint’s function/location and associated symptoms. It also includes a brief anatomical overview of the joint and etiologies for various pathologic conditions. Potential differential diagnoses, treatment modalities and home care remedies are also listed. http://www.entnet.org/content/tmj. Unfortunately, much of the information on this webpage is outdated, especially in regard to the idea that dental occlusion is an important etiologic factor for TMDs, and also that most TMJ pain is due to disc displacement. Patients are told that primary care may be provided by the ENT doctor, and then later coordinated with the patient’s dentist. Anecdotally, we have seen two common patterns in clinical practice when patients are referred to dentists from ENT doctors: 1) Misdiagnosis – patients presenting to them with ear pain that does not appear to be coming from ear structures are told they probably have a TMD; and 2) Check the bite – patients are told that bite alignment is a likely reason for their pain, so their dentist will analyze and fix such problems.
Members of the American Osteopathic Association utilize osteopathic manipulative treatment (OMT) which involves the use of hands to diagnose, treat, and prevent illness or injury via “gentle manipulation of muscles and joints.” They do claim to be successful in the management of TMDs. The academy published a video in 2015 illustrating a “therapeutic technique” for TMD management: https://www.youtube.com/watch?v=wa-Wl2EvrCU.

The website lists some articles to support their viewpoint, and they state that there have been multiple publications from 1985-2011 in the Journal of the America Osteopathic Association and the International Journal of Osteopathic Medicine confirming the efficacy of OMT as a treatment modality for TMDs. It is worth noting that there is an overlap between this association and the American Craniosacral Therapy Association, in that both groups advocate craniosacral therapy (CST) which will be discussed below. While OMT is the core treatment philosophy of the osteopathic profession, the origins of CST can be traced to a more fringe component of this group beginning in the 1970’s.

The American Academy of Neurology lacks any statement or publication related to TMD in any capacity. The society’s page on chronic disorders does include TMD as a possible etiological factor associated with a chronic pain state, but they do not claim to be able to treat TMD.

The American Academy of Orthopedic Surgeons lacks any statement or publication related to TMD in any capacity. They do not claim to be able to treat TMD.

OTHER “DOCTORS”

Chiropractors: The American Chiropractic Association (ACA) has little official information on TMJ/TMD - For general information about chiropractic theory and practice information see: https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2891802/. Here are a few examples of information that was found on various chiropractic websites:

- TMJ is mentioned as a distinct extraspinal region in a billing statement where the ACA describes a structure for insurance claims.
• TMD is also mentioned in a 2016 publication on the ACA website by Lehman et al as a sign/symptom of whiplash. https://www.acatoday.org/News-Publications/ACA-News-Archive/ArtMID/5721/ArticleID/42/Whiplash-Associated-Disorders

• TMDs are mentioned as a factor that induces and exacerbates tension headaches in a 2014 publication by Marchand et al.16

• A 2010 systematic review by Hestbaek and Stochkendahl17 adopted by the ACA cited another study by Monaco et al18 which found osteopathic manipulative therapy (OMT*) can improve mandibular kinetics in pediatric patients, ages 2-18, suffering from TMDs.

*NOTE: Since DC’s can do manipulative therapies, they can “borrow” this approach from the osteopathic profession. They cannot prescribe medications or do surgical procedures.

Moreover, it should be noted that there are several “methods” of chiropractic treatment that have organized subgroups with their own webpages. Our search found the following:

• **Activator Methods International LTD** - A 2015 study by Pavia et. al, entitled “Chiropractic Treatment of Temporal Mandibular Dysfunction: A Retrospective Case Series,” is published on their TD webpage (https://www.activator.com/case-studies/chiropractic-treatment-of-temporomandibular-dysfunction-a-retrospective-case-series/). Cases were treated by the Activator method.

• **Diversified Chiropractic Technique** has no TMD/TMJ related statement associated with its organizational webpage.

• The **Active Release Technique**’s (ART) webpage contains no statements or publications regarding TMD management, but a Google search generated claims by multiple private practitioners on their webpages on the efficacy of ART in TMD management. A few videos also were discovered: https://www.youtube.com/watch?v=UPFDltbT-uY

• **Chiropractic and Functional Medicine**’s webpage contains no statements or publications regarding TMD management. However, a Google search generated a publication of an interview from the Cleveland Clinic by Melissa Young M.D. and Andrew Bang D.C. entitled “TMJ & Migraine Pain Relief: A Chiropractic & Functional
Medicine Approach.” This interview discusses the various components of TMD as it relates to functional medicine. [https://my.clevelandclinic.org/health/transcripts/1674_tmj-migraine-pain-relief-a-chiropractic-functional-medicine-approach](https://my.clevelandclinic.org/health/transcripts/1674_tmj-migraine-pain-relief-a-chiropractic-functional-medicine-approach)

- The **PulStar** webpage contains no statements or publications regarding TMD management.

- The **ProAdjuster Chiropractic Clinic of Virginia Beach** has a brief patient-centered informational page on TMDs. There is little information on how the ProAdjuster method fits into the management equation. There is no organizational page on this technique, and none of these webpages explicitly illustrate how the technique uniquely manages TMDs.

**American Naprapathic Association** - [http://www.naprapathy.org/](http://www.naprapathy.org/) Naprapathic Medicine is a system of healthcare that employs manual medicine, non-invasive modalities, nutritional counseling, and therapeutic and rehabilitative exercise in the treatment of pain caused by connective tissue disorders. They do list TMJ as one of the conditions they treat, but no specific information was available on related websites.

As shown in Table 1, most of the non-dentist doctoral groups did not have any specific information about TMDs on their websites, although in every group there were individual office web pages that offered some kind of treatment for those conditions.

**OTHER HEALTHCARE PROVIDERS**

The **American Craniosacral Therapy Association** ([http://www.acsta.org/](http://www.acsta.org/)) is one of several groups (including some members of the osteopathic profession) utilizing the concepts of craniosacral therapy (CST) to treat a variety of conditions, including TMDs. These practitioners use a light touch, between five to ten grams (about the weight of a nickel), to evaluate and release cranial suture restrictions in order to bring synchrony and balance to the cranial bones, as well as improve the function of the central nervous system. This series of techniques was developed originally from the concepts proposed about 50 years ago by Dr. W. Sutherland, an osteopathic physician.

Despite the fact that the cranial sutures are strongly fused together in late adolescence, CST
practitioners claim to be able to feel the deviations from proper alignment and then to be able to correct them in mature adults as described above.

The association claims that CST manipulation can treat a myriad of conditions ranging from Autism to TMDs. As a result of this minute manipulation, the mandible and the temporal bones can be aligned symmetrically resulting in a harmonious dynamic in the TMJ. In addition, the flow of cerebrospinal fluid will be improved (hence the “sacral” part of the process). This entire concept is discussed in some detail on the Quackwatch website (http://www.quackwatch.org).

The American Massage Therapist Association has a publication from 2008 by Patricia O'Rourke & Michael Hamm which serves as a guide for massage therapists on how to evaluate and treat TMDs. https://www.amtamassage.org/articles/3/MTJ/detail/1625/jaws

It focuses primarily on assessing the “alignment of both the head and the whole body, and a functional assessment of the TMJ.” They attribute anatomical mandibular asymmetries, improper head positions, sunken rib cages (depressing SCM and cervical fascia therefore malpositioning the TMJ unit), spinal and pelvic imbalances as potential etiologies for TMDs. Other etiologies include “abnormal mandibular movement” which they classify as the inability to open vertically more than one inch and a lateral deviation upon opening

For treatment, they describe a variety of “general and structural goals.” In addition, descriptions of various extra- and intra-oral techniques for muscular manipulation are outlined. The extra-oral maneuvers include a “masseter-temporalis release, superficial anterior fascial stretch, and occipital fascial stretch”. Intra-oral techniques include a functional massage of the masseter as well as the medial and lateral pterygoid muscles.

The Academy of Orofacial Myofunctional Therapy (https://aomtinfo.org/) is managed by a husband and wife team (Richard Moeller and Joy Moeller), and Joy is a prominent practitioner in this field. The Academy published an article in 2014 about myofunctional therapy’s role in the management of TMD, written by an alternative medicine proponent, Dr. Joseph Mercola. https://articles.mercola.com/sites/articles/archive/2013/04/07/orofacial-myofunctional-therapy.aspx The article outlines his experiences being treated for his issue of being “tongue
tied”, and it also features an interview with the “premier expert on myofunctional therapy in the USA,” Joy Moeller. According to the article, TMD is managed most optimally through the neuromuscular re-education or re-patterning of the oral and facial muscles. This is accomplished by a myofunctional therapist through facial exercises and behavior modification techniques to promote proper tongue position, head and neck posture, as well as improved breathing, chewing, swallowing. According to the article, these techniques can also be used to treat headaches, breathing problems and dental-related parafunctional habits.

The American Physical Therapy Association website (www.apta.org) and the American Board of Physical Therapy Specialties website (http://www.abpts.org) do not have any specific links to appropriate management of TMD problems, although the APTA website does specify that PTs work with patients with TMJ problems (http://www.apta.org/PTCareers/Overview). We have followed up on our initial web search to find out more about how the educational system for physical therapists is currently structured, and found that physical therapists are the only allied health professionals currently required to obtain a doctoral degree (DPT) from an accredited degree granting institution. The curriculum standards of entry level PT education, as set by the Commission on Accreditation in Physical Therapy Education (CAPTE - www.capteonline.org) includes coverage of the examination, diagnosis and management of musculoskeletal problems under which TMD would fall. The Guide to PT Practice is the description of physical therapist practice, for use by physical therapists as well as physical therapist assistant educators, students and clinicians, and it specifically includes mention of PTs working with individuals with TMJ problems.

The DPT entry level degree status of physical therapists has enabled changes in state laws regarding a patient’s ability to access the services of a PT directly. As a result, instead of the old system where referral for PT care must be initiated by dentists and physicians, patients now can consult directly with PTs who are expected to utilize evidence based diagnostic criteria. Based on that initial exam, PTs can develop treatment plans and initiate management plans for TMD patients based on their professional assessments in consultation with the patient’s medical or dental providers. However, there is no standardized curriculum for teaching any specific musculoskeletal content, including TMD management, in entry level PT educational programs. The extent to which TMD content is covered in entry level DPT programs in the US has recently been investigated via a survey sent to all of those programs. Formal post-professional education through residency and fellowship programs endorsed by the APTA may fall short in didactic and
clinical education exposure to TMD\textsuperscript{20}.

These educational standards and practice parameters that have been established by the physical therapy profession stand in sharp contrast to ALL of the other allied health groups described above, which are self-contained organizations that provide TMD training via educational seminars or lectures through their Institutes or continuing education classes. No evidence was found in our search of any formal primary-level training in TMD management in any of those groups.

To bridge the gap between entry level DPT programs, post-doctoral residency programs and management of patients with TMD, a group of PTs has developed the Physical Therapy Board of Craniofacial & Cervical Therapeutics (www.ptbcct.org). The PTBCCT has dedicated themselves to post-graduate study and management of TMDs, orofacial pain and craniocervical relationships, and they have developed a working relationship with the American Academy of Orofacial Pain (AAOP). Their website states the following:

“The Physical Therapy Board of Craniofacial and Cervical Therapeutics (PTBCCT) was founded in 1999 by an international group of physical therapists, many of whom are members of the American Academy of Orofacial Pain (AAOP), to provide an ongoing educational venue within the academy and assist the profession in the disbursement of evidenced based practice and research.”

This small but growing group represents what we will describe here as the conventional viewpoints of the PT profession as they relate to the treatment of TMD patients. PTs who elect to become more involved in the management of TMD, orofacial pain and craniocervical relationships can take advantage of the postgraduate continuing education resources offered by the PTBCCT. As a result, those PTs who enhance their post-graduate expertise in relevant TMD and related topics can thereby become competent adjunctive members of the medical and dental management team.

A recent paper by two prominent members of the physical therapy community\textsuperscript{21} provides a list of typical modalities and strategies used by conventional PTs for managing TMD patients, with special focus on those who have TMJ disk derangements. They start out by discussing the expectations that patients may have for the outcomes of PT, and then they educate the patients about the anatomy and physiology of their clinical problem. They introduce the concept of
behavioral modification, which is defined as the direct changing of unwanted behavior by means of biofeedback or conditioning. They usually recommend some type of therapeutic exercise, which is defined as any exercise planned and performed with the aim of improving a single parameter, such as strength, range of motion (ROM), flexibility, or endurance. These exercises are accompanied by neuromuscular reeducation, which is defined as the reeducation of movement, balance, kinesthetic sense, posture, and proprioception. Finally, most PT sessions include some form of manual therapy with procedures such as joint mobilization, dry needling, muscular strengthening, and other soft tissue mobilization. These sessions also can include the use of various modalities such as ultrasound, iontophoresis, phonophoresis, TENS, and interferential stimulation.

In addition to the PT papers cited above, there have been several other publications dealing with relationships between the PT profession and the dental profession regarding management of TMDs. However, it is important to recognize that in addition to the conventional mainstream members of the PT profession, there are other PTs who claim to have an interest in treating TMDs, but who engage in a number of questionable practices. Their websites often feature descriptions of their extra-curricular training with various “experts” as well as the unorthodox treatment methods they offer.

In addition to all the conventional concepts and practices that characterize the PT community, there are a number of so-called CAM (complementary and alternative medicine) therapies that are frequently offered in courses as CE training for PTs. A list of some of those CAM therapies is presented in Table 3, with a brief definition of each one.

**DISCUSSION**

The results obtained from this survey of non-dentist healthcare providers were not positive, and they suggest that TMD patients seeking care from most of them may be at risk for receiving some form of inappropriate treatment. It was very disappointing to learn that most of the doctoral groups (see Table 1) do not have any formal statements about diagnosing or treating TMDs on
their official websites. Upon further inspection, we did not find any evidence that diagnosis or
treatment of these disorders is taught as part of the regular curriculum in their doctoral programs.
Therefore, any professional interest by individual practitioners in getting involved in this area
must come from taking continuing education courses of some kind. Similarly, most of the allied
health providers (see Table 2) did not have any formal statements on their official websites, nor
were they being taught about TMDs in their schools; therefore, they also appear to get most of
their information from various TMD courses that are presented as continuing education in their
field. Nevertheless, when individual websites were observed in nearly every discipline, it was
common to find that TMJ/TMD was listed as a condition treated in the office of many non-
dentist practitioners.
Oddly enough, the current situation within the dental field is not much better, because at this
time there is no requirement from the Council on Dental Accreditation (CODA) for dental
colleges to teach their undergraduate students about orofacial pain in general, or TMDs in
particular. Obviously, the dental profession is the main group responsible for taking care of
TMD patients; but the uneven levels of education in the USA spell some danger for patients who
expect their dentists to provide primary care for their facial pain problems. The wide variations
in teaching (or not teaching) about TMDs within American and Canadian dental schools were
described by Klasser and Greene in a survey paper published in 2007, and the situation has not
improved much since then.
We already know that there is considerable controversy persisting within the dental profession
about how TMD problems should be managed, with many dentists still advocating irreversible
treatments including jaw repositioning and occlusal changes. Despite the huge amount of
literature refuting that viewpoint and supporting conservative and reversible treatments, a
TMD patient is more likely than not to find their dentist to be either uninterested in treating these
conditions or willing to provide inappropriate treatment. Since they are not learning enough
about TMD management in their dental schools, the dentists who are involved in such treatment
are getting their information from various academies, institutes, or continuing education
seminars. As reported by Desai et al, a person seeking expert TMD care from a dentist by using
a Google search is more likely (66%) to find a practitioner who follows the occlusion-changing
model than to find a more conservative provider.
In this survey of non-dentist health providers, physical therapists (PTs) emerged as the only ancillary health care profession with some positive aspects regarding their training as well as their treatment approaches for TMDs. As mentioned earlier, the curriculum standards of entry level PT education, as set by Commission on Accreditation in Physical Therapy Education (CAPTE) includes coverage of the examination, diagnosis and management of musculoskeletal problems under which TMD would fall. Also, their Guide to PT Practice, which is the description of current physical therapist practices, specifically includes mention of PTs working with individuals with TMJ problems.

It seems remarkable that until now there have been no published reports about how TMDs are handled by health professionals outside of the dental profession. Disorders of the TMJ complex require management by properly trained and ethical clinicians employing standard and empirically-based conservative techniques, regardless of which professional discipline they belong to. Dentists who want to refer their patients for treatment cannot jeopardize those patients by allowing improper management to make matters more complicated; also, they may be medicolegally liable if some adverse event occurs. While our web-based search did not reveal any non-dental professionals advertising to manage TMDs with any type of invasive treatment methods, there is still significant potential for harm for patients on their own exploring non-dental options for TMD management. Therefore, it is the obligation of their dentists to either provide appropriate primary TMD management, or to refer them for such care. If patients present to the dental office while already receiving non-dentist professional care, it is important for the dentist to be knowledgeable about what is happening and to give them appropriate advice.

So what can a person who believes that he/she might have a TMD problem do in order to find appropriate care, while avoiding the pitfalls of misdiagnosis and improper treatment? Given the current situation in both the dental and non-dental world, as described in this paper, that will be a challenge at best; and using a computer to search for care will present patients with a confusing mass of information and options. However, the authors recommend a common-sense approach to this reality that, for both dentists and patients, can potentially lead to good outcomes. First, it is crucial to establish a correct diagnosis, because there are many orofacial pain
conditions that either mimic or overlap with TMDs. Fortunately, there are over a dozen postgraduate Orofacial Pain training programs in the USA that teach dentists how to diagnose and treat TMD patients, and several dental colleges as well as some hospitals have special clinics that work with such patients. The graduates from these Orofacial Pain programs are spread throughout the country; information can be found at: (https://aaop.clubexpress.com/content.aspx?page_id=22&club_id=508439&module_id=107337).

In addition, there are a number of Oral Medicine residency programs https://www.aaom.com/residency-programs and advanced Oral Medicine training sites https://www.aaom.com/advanced-programs where postgraduate dentists learn about orofacial pain, and it is worthwhile to seek advice from these well-trained experts even if some distance must be covered.

Second, there are some excellent reference documents and websites that can guide TMD patients and their dentists toward correct information about managing their condition. These include pamphlets from the National Institute of Health (https://www.nidcr.nih.gov/sites/default/files/2017-09/less-is-best-tmj.pdf, https://www.nidcr.nih.gov/sites/default/files/2017-12/tmj-disorders.pdf) and the TMJ Association (http://www.tmj.org/Page/52/20), plus reputable websites of hospitals like the Mayo Clinic and Massachusetts General Hospital. In addition, the American Association of Dental Research developed a TMD position statement in 2010 that reflects the current best practice guidelines (http://www.iadr.org/AADR/About-Us/Policy-Statements/Science-Policy/Temporomandibular-Disorders-TMD).

If consulting with a local dentist, a patient should ask about their background and experience in managing TMD, with an emphasis on seeking conservative care and avoiding irreversible treatments. The same is true if that dentist refers the patient to the local TMD “expert”, because so many possibilities may be encountered; therefore, both the patient and the dentist need to know which conceptual framework that expert is following.

Third, if a patient is being referred to a physical therapist, ask about the issues raised in the Results section regarding whether that person has advanced training in conventional PT practices. If you are referred by your dentist (or self-referred) to one of the other types of allied
health professionals described in this paper, it is essential to query them about their concepts and practices before deciding to engage in treatment with them.

Finally, it has been scientifically demonstrated that many TMD patients can get very positive results from utilizing a variety of self-management techniques. These are beautifully laid out in a consensus document authored by a large group of experts\textsuperscript{34}, and every patient should take advantage of this information regardless of whatever professional treatment is being provided.

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Table 1 – Medical and Allied practitioners with doctoral degrees.

<table>
<thead>
<tr>
<th>Doctoral degree Health Providers</th>
<th>Organizational Website positive for TMD statement</th>
<th>Individual Websites (all) positive for TMD statement</th>
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</thead>
<tbody>
<tr>
<td>American Academy of Family Physicians (MD)</td>
<td>Yes</td>
<td>Yes</td>
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<tr>
<td>American College of Rheumatologists (MD)</td>
<td>No</td>
<td>Yes</td>
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<tr>
<td>American Academy of Otolaryngologists (MD)</td>
<td>Yes</td>
<td>Yes</td>
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<td>Yes</td>
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<tr>
<td>American Academy of Osteopathic Physicians (DO)</td>
<td>Yes (See \textit{craniosacral note below}^{**})</td>
<td>Yes</td>
</tr>
<tr>
<td>((\text{training nearly identical to allopathic physicians (MDs)}))</td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Academy of Chiropractic Physicians (DC)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>American Naprapathic Association (DN)</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>American Association of Naturopathic Physicians (ND) AKA: Homeopathic Physicians</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>American College of Physicians American Medical Association</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

** NOTE - Most osteopathic physicians utilize conventional medical techniques, but some employ a method of \textit{craniosacral therapy}; this is defined in the Results section.
Table 2 – Allied Health Professions

<table>
<thead>
<tr>
<th>Allied Health Professionals</th>
<th>Organizational Website positive for TMD statement</th>
<th>Individual Websites (all) positive for TMD statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Craniosacral therapists*</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Myofunctional Therapists</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Massage Therapists</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>Acupuncturists</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Oriental Medicine</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>Physical Therapists (DPT)</td>
<td>Yes - some have advanced training in TMD management **</td>
<td>Yes</td>
</tr>
<tr>
<td>Occupational Therapists (OT)</td>
<td>No – one article published in 2007</td>
<td>Yes</td>
</tr>
</tbody>
</table>

* See Results section for definition

** See Results section for details

Table 3 – Complementary and Alternative Therapies

<table>
<thead>
<tr>
<th>Therapy</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reiki</td>
<td>Based on an Eastern belief in energy that supports the body’s own healing ability and spiritual development involving laying of hands on or just above a person.</td>
</tr>
<tr>
<td>Shiatsu Massage</td>
<td>Manual therapy of Japanese origin in which a practitioner applies pressure on certain points of the body in order to activate the body’s own healing capacities.</td>
</tr>
<tr>
<td>Polarity Therapy</td>
<td>Energy-based bodywork and education to promote energetic and cleansing principles of eating and increased self-awareness in addition to using polarity yoga to rebalance energy flow.</td>
</tr>
<tr>
<td>Reflexology</td>
<td>Varying amounts of pressure applied to specific points on the feet or hands which are believed to match up with other parts of the body to cause relaxation and healing in those parts</td>
</tr>
<tr>
<td>Method</td>
<td>Description</td>
</tr>
<tr>
<td>---------------------------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Myotherapy</td>
<td>A form of manual therapy directed to myofascial pain and dysfunction from muscles and surrounding connective tissue that focuses on musculoskeletal pain and rehabilitation, using trigger point therapy, massage and manipulation of muscles.</td>
</tr>
<tr>
<td>Static Magnetic Therapy</td>
<td>Magnets with magnetic fields that do not change are placed on body regions to influence pain.</td>
</tr>
<tr>
<td>Indian Head Massage Therapy</td>
<td>A traditional massage approach, originally practiced by women in India restricted to the head and neck to promote hair growth, pain relief and stress reduction.</td>
</tr>
<tr>
<td>Energy Therapy</td>
<td>The channeling of healing energy through the hands of a practitioner into the client’s body to restore a normal energy balance and, therefore, health.</td>
</tr>
<tr>
<td>Therapeutic Touch</td>
<td>The passing of a practitioner’s hands several inches over another person’s body, while engaging in a process similar to meditation, with the intent of helping the person’s body to heal.</td>
</tr>
<tr>
<td>Qigong</td>
<td>An ancient Chinese discipline combining the use of gentle physical movements, mental focus, and deep breathing directed toward specific parts of the body.</td>
</tr>
<tr>
<td>The Ida Rolf Method of Structural Integration</td>
<td>A system of manual therapy and sensorimotor education to improve human biomechanical functioning through balancing the tone of facial structures as a whole rather than to treat particular symptoms.</td>
</tr>
<tr>
<td>Feldenkrais</td>
<td>An experiential process or set of processes, whereby an individual or a group could be guided through a series of movement- and sensation-based explorations to improve function and quality of life.</td>
</tr>
<tr>
<td>The Alexander Technique</td>
<td>A psycho-physical method that helps to release muscle tension and re-educates non-beneficial movement patterns through intentional inhibition of unwanted habitual behaviors.</td>
</tr>
</tbody>
</table>

Table 3. Complementary and alternative medicine topics that are presented to physical therapists (and others) in various publications and in continuing education courses. (For more detailed descriptions see: Judith Deutsch, Ellen Anderson. Complementary Therapies for Physical Therapy, A Clinical Decision-Making Approach, 1st Edition - Saunders 2007).