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Review Article

Practice Patterns for Temporomandibular Disorders and Orofacial Pain: A Survey of General Dentists, Dental Specialists and Dentists Specializing in Orofacial Pain

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Abstract

As a group, temporomandibular disorders and orofacial pain represent a major dental disease affecting nearly 20% of the population. This paper compares the practice patterns of general dentists and dental specialists with the clinical practices of Orofacial Pain dentists relative to the diagnosis and treatment of these disorders. It is clear that much training Neds to be added to both pre-doctoral and specialty dental curriculums and continuing education.

Introduction

Orofacial Pain (OFP) is the discipline of dentistry that focuses on the assessment, diagnosis and treatment of patients with orofacial pain disorders. These conditions include masticatory and cervical neuromuscular pain disorders, temporomandibular joint disorders, benign headache disorders, neuropathic and neurovascular orofacial pain disorders, burning mouth pain, chronic regional pain syndrome, atypical dental and facial pain, orofacial cancer and AIDS pain, orofacial sleep disorders, and promotor dysfunction conditions such as dyskinesias and dystonias (references?). Changes in the U. S. population demographics and an increasing awareness of these disorders by the public have contributed to a rapidly expanding demand for orofacial pain services [1]. The dental profession has a great responsibility to meet this demand in terms of differentiating orofacial pain by type and mechanism, performing a proper clinical assessment, and developing appropriate treatment plans for these patients [2].

The professional training received by most dentists has been traditionally oriented toward treating caries and periodontal disease, rather than to meet such new challenges [1,3]. However, OFP shows a similar prevalence to that of caries and periodontal disease in the U.S. adult population. For example, the NHANES III survey found 40.5 % of the U.S. population, aged 18 to 74, had at least one tooth or tooth space meeting criteria defined as compromised structural dental integrity, dysfunction or disease (non-periodontal) that may benefit from treatment [4]. Similarly, 30% of the population, aged 13-65, was determined to have a gingival pocket depth ≥ 4 mm, and 4% had a pocket ≥ 6 mm in depth [5]. A 1989 national orofacial pain survey of 45,711 households found that 22% of adults had suffered some type of TMD and orofacial pain during the previous six months [6]. A 1986 survey of the city of Toronto found 40% of respondents had experienced dental or facial pain during the previous four weeks [7].

Temporomandibular disorders (TMDs), which constitute just one of the orofacial pain disorders, are present in about 5-6% of the adult population at a severity that would benefit from treatment [1,6,8,9]. When all facial pain disorders are considered, a conservative estimate for OFP treatment needs in the adult population would be at least 7% [6,10]. In the U.S. civilian non-institutionalized population 18 years and over, that total could number from 11 to 12 million. Studies in children indicate they may also experience similar levels of temporomandibular signs and symptoms [1]. Thus, combining adults and children, the prevalence of OFP in the American population could easily surpass 13 million.

Perhaps more important than the caseload is OFP's association with disability. It was estimated by a 1986 Harris Poll that 156.9 million work days were lost due to head pain [11]. Wedel and Carlsson [12] found that 10% of 350 consecutive patients referred for OFP treatment, had been on sick-leave. In the 1986 survey of Toronto, 70% of the respondents with dental or facial pain reported worry or concern over their conditions, and one or more behavioral impacts occurred in 58% of them [7].

For many less complex orofacial pain conditions such as simple TMDs, a conservative initial therapy consisting of explanations about the condition, home care instructions, and a short-term use of mild to moderate analgesics and anti-inflammatory medication may be sufficient [13]. The clinical problem presenting for many dentists is knowing when more intensive therapy is indicated, and providing this care. When such pain persists, it can become entrenched in one's life and may lead to dependent relationships, emotional disturbances, disability, and significant behavioral and psychosocial problems [14]. If treatment of the orofacial pain disorder is inadequate or inappropriate, the outcome can be tragic in terms of personal effects and financial costs [7,12]. A frustrating medical and dental picture may result with such patients undergoing costly treatments, diagnostic tests, long-term medications, and an ongoing dependency on the health care system.

These issues highlight an important question to be answered by the profession of dentistry: Where can OFP patients turn when their pain becomes chronic and disabling problem? Roper Starch Worldwide surveyed 805 individuals in the general population with a persistent pain disorder [15]. Fifty-six percent of respondents had suffered pain for more than 5 years, 47% had switched care providers at least once, and 40% reported that their pain was out of control. Two studies have found that OPD patients have seen an average of five clinicians and suffered with their pain an average of more than six years prior to consulting an orofacial pain dentist [16,17]. Since uncertainty may exist among dental professionals as to who currently treats patients with complex chronic orofacial pain disorders, there is a need to: 1) identify who treats these patients, 2) determine the practice

patterns and the limitations of the various disciplines within organized dentistry, and 3) assess whether it is necessary to further develop the field of orofacial pain care in order to address societal needs. The purpose of this paper is to present results of a survey of dentists who described their clinical practice patterns relative to the diagnosis and treatment of OFP disorders.

Methods

A survey of practice patterns for the diagnosis and treatment of patients with chronic orofacial pain disorders was sent to a defined population of general dentists and dental specialists who are members of the Minnesota Dental Association (MDA), and to orofacial pain dentists who are members of American Academy of Orofacial Pain (AAOP). Of the 1200 surveys mailed to the MDA members, 426 (35.5%) were returned by 329 general dentists and 97 dental specialists. Of the 255 surveys sent to practicing orofacial pain dentists, 120 (47.1%) were returned. The surveys were introduced with a letter stating that a study was being conducted to determine the types of treatment provided by the dental profession for chronic orofacial pain disorders. This request for information was limited to a single mailing, with no follow-up appeals or other pressure directed toward those who failed to respond. As a result, the response rates were modest and similar to what other investigators have observed [18].

The Statistical Analysis System software (SAS Institute) was used to analyze practice differences between orofacial pain dentists versus general dentists, and between orofacial pain dentists versus dental specialists. The primary group differences being investigated were: 1) frequencies of treatment decisions as to treat or refer OFP patients; 2) frequencies of specified OFP diagnostic skills; and 3) frequencies of specified OFP treatment skills. Reported frequencies by group and by item were entered into 2X2 contingency tables, and chi-square tests were employed to estimate the statistical significance of the group differences.

Additional descriptive data were collected on the questionnaires. All participants were polled as to the percent of their practices devoted to treatment of OFP patients. The general dentists and dental specialists were questioned as to which dental or medical specialists they referred OFP patients, and whether they would prefer to refer these patients to an orofacial pain specialist, if one were available. They were also asked to indicate the reasons why they preferred to not treat the OFP patients whom they referred. The orofacial pain dentists were asked to estimate the average number of new OFP patients they see per month, the number of previous clinicians these patients had seen for their orofacial pain condition, and the number of years these patients had experienced pain prior to consulting an orofacial pain dentist.

Results

Treatment versus referral of OFP patients: General dentists and dental specialists reported that they refer from 75% to nearly 100% of all patients with the disorders in Table 1. In contrast, the orofacial pain dentists treat nearly all of the myofascial pain disorders and complex TMD cases, as well as from 65% to 79% of cervical muscle pain, benign headache, neurovascular pain, neuropathic pain, burning mouth pain, atypical pain and sleep disorders cases. Finally, they treat from 30% to 50% of cancer pain cases, sympathetically mediated pain cases, and dyskinesias or dystonias.

Statistical comparisons of practice patterns relative to each disorder were performed. For each contrast, the orofacial pain dentists differed significantly from the general dentists with chi-squares ranging from 62 to 283. Based on 1 degree of freedom, a chi-square value greater than 10.83 has an associated p-value < 0.001. Likewise, practice differences between orofacial pain dentists and dental specialists were highly significant with chi-squares ranging from 17 to 163.

Table 1: Treatment and Referral Practice Patterns for Orofacial Pain (OFP) Dentists (n=120), General Dentists (n=329) and Dental Specialists (n=97) Relative to Twelve Orofacial Pain Disorders.

Group	OFP Dental Specialist Practice Patterns		General Dentist Practice Patterns		Other Dental Specialist Practice Patterns	
Orofacial Pain Disorders	**Percent Treated**	**Percent Referred**	**Percent Treated**	**Percent Referred**	**Percent Treated**	**Percent Referred**
Myofascial Pain Disorder	99.1	0.9	12.1	87.9	11.0	89.0
Complex TMD	94.9	5.1	9.5	90.5	19.1	80.9
Cervical Muscle Pain	70.7	29.3	7.9	92.1	5.2	94.8
Benign Headache	75.8	24.2	19.9	80.1	10.5	89.5
Neurovascular Pain	65.0	35.0	2.2	97.8	7.5	92.5
Neuropathic Pain	66.9	33.1	2.9	97.1	2.6	97.4
Burning Mouth Pain	74.5	25.5	26.2	73.8	25.0	75.0
Sympathetically Mediated Pain	51.8	48.2	8.2	91.8	4.2	95.8
Atypical Dental and FacialPain	79.0	21.0	9.7	90.3	13.4	86.6
Cancer Pain	31.9	68.1	2.7	97.3	5.6	94.4
Dyskinesias and Dystonias	43.0	57.0	3.3	96.7	1.4	98.6
Sleep Disorders	65.3	34.7	17.0	83.0	4.1	95.9

TMD/OFP diagnostic skills: The diagnostic skills that were surveyed are listed in Table 2. They included the use of a diagnostic classification to differentiate orofacial disorders, the ability to perform head, neck and intra-oral exams, the use of appropriate radiographic diagnostic techniques, and provocative pulp testing. Other skills included the ability to perform sleep disorder diagnostics, psychosocial interviews and psychometric testing, and diagnostic injections for muscle, neural and joint blockades. Finally, a question was asked relative to electronic diagnostic testing for orofacial disorders. This diagnostic modality was considered by many in each group to have limited application, and it was the only item showing close agreement between all three groups ($p > 0.3$), with 84-89% never employing it.

Table 2: Diagnostic Skills Reported by Orofacial Pain (OFP) Dentists (n=120), General Dentists (n=329) and Dental Specialists (n=97) Relative to Orofacial Pain Disorders.

Group	OFP Dentist Diagnostic Skills		General Dentist Diagnostic Skills		Dental Specialist Diagnostic Skills	
Diagnostic Skills & Frequencies Employed	Percent Often	Percent Never	Percent Often	Percent Never	Percent Often	Percent Never
Diagnostic Classifications	87.3	3.6	27.8	36.1	44.1	22.6
Head, Neck and Intra-oral Exam	98.2	0.0	70.4	10.3	71.1	8.9
Plain Film Radiographs and Tomography	77.3	0.0	27.3	48.1	43.0	30.2
Provocative Pulp Testing	39.5	7.3	47.5	20.1	27.6	46.0
Sleep Disorder Exam and History	63.1	3.6	21.0	39.5	9.4	55.3
Psychosocial Interviewing	59.1	5.5	9.7	66.6	7.0	69.8
Psychometric Testing	23.3	26.2	0.3	96.0	1.2	92.9
Diagnostic Neural Blockade	38.7	7.2	0.7	86.2	2.3	72.1
TMJ and/or Auriculo-temporal Blocks	30.6	13.5	1.0	94.0	2.3	83.7
Diagnostic Intra-muscular Injections	39.6	10.8	0.3	94.6	1.2	84.8
Electronic Diagnostic Testing	3.7	84.1	2.4	87.9	4.8	89.3

Excluding use of electronic diagnostic testing, a large majority of orofacial pain dentists reported the diagnostics skills noted above, although just 74% of them performed psychometric testing. In contrast, more than half of the general dentists and dental specialists did not use, even on an occasional basis, 60% or more of these diagnostics methods. The statistical differences between orofacial pain dentists versus general dentists and between orofacial pain dentists versus dental specialists were highly significant with chi-square values greater than 18 for contrasts relative to any of these diagnostic skills, with the exception of the electronic diagnostic testing.

Table 3: Treatment Skills Reported by Orofacial Pain (OFP) Dentists (n=120), General Dentists (n=329) and Dental Specialists (n=97) for Orofacial Pain Disorders.

Group	OFP Dentist Diagnostic Skills		General Dentist Diagnostic Skills		Dental Specialist Diagnostic Skills	
Diagnostic Skills & Frequencies Employed	Percent Often	Percent Never	Percent Often	Percent Never	Percent Often	Percent Never
Diagnostic Classifications	87.3	3.6	27.8	36.1	44.1	22.6
Head, Neck and Intra-oral Exam	98.2	0.0	70.4	10.3	71.1	8.9
Plain Film Radiographs and Tomography	77.3	0.0	27.3	48.1	43.0	30.2
Provocative Pulp Testing	39.5	7.3	47.5	20.1	27.6	46.0
Sleep Disorder Exam and History	63.1	3.6	21.0	39.5	9.4	55.3
Psychosocial Interviewing	59.1	5.5	9.7	66.6	7.0	69.8
Psychometric Testing	23.3	26.2	0.3	96.0	1.2	92.9
Diagnostic Neural Blockade	38.7	7.2	0.7	86.2	2.3	72.1
TMJ and/or Auriculo-temporal Blocks	30.6	13.5	1.0	94.0	2.3	83.7
Diagnostic Intra-muscular Injections	39.6	10.8	0.3	94.6	1.2	84.8
Electronic Diagnostic Testing	3.7	84.1	2.4	87.9	4.8	89.3

TMD/ OFP treatment skills: Table 3 shows 28 treatment modalities that are employed for orofacial pain disorders. This list is not exhaustive, but it served as the basis for this survey. This table includes the percent of practitioners who reported frequent use of the treatment modalities, and the percent who never used them.

About one half of the orofacial pain dentists were not involved in chemical abuse management, detoxification treatment, intramuscular injection for dystonias, and cervical nerve blocks. In addition, nearly three quarters did not perform stellate ganglion blocks. The majority of them did, however, offer the other services listed in the questionnaire. In contrast, more than half of the general dentists and dental specialists reported mainly the use of stabilization splints, NSAIDs, home exercise programs, and heat/cold therapy for treatment of orofacial pain disorders. The between-group differences in services were highly statistically significant. For contrasts comparing orofacial pain dentist with general dentists, the chi-square was 31 or greater. For the orofacial pain dentist/dental specialist contrasts, the chi-square values were 22 or greater.

Descriptive findings from the survey

Figure 1 shows that more than 90% of general dentists and dental specialists devote less than 5% of their time to the treatment of orofacial pain disorders. Twenty-one percent of orofacial pain dentists devote less than 25% of their time to these services, but 50% of them devote 75% or more of their practice to orofacial pain dentistry.

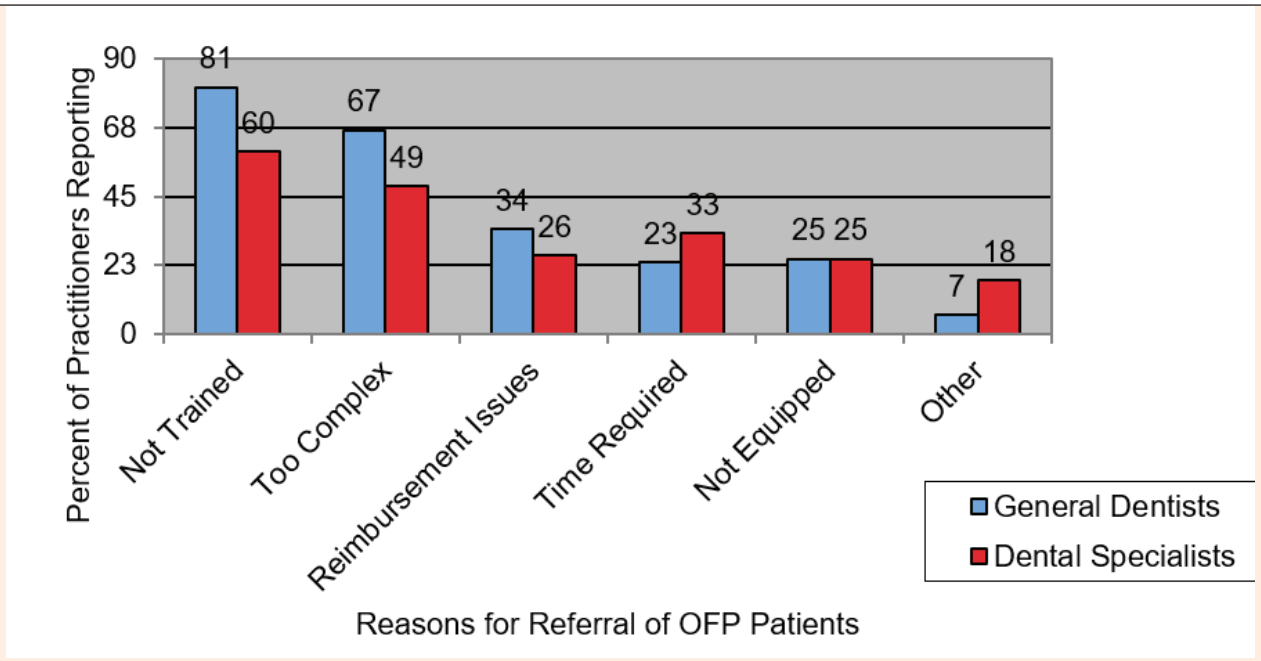

Figure 1: Reasons Reported by General Dentists and Dental Specialists for Referral of Orofacial Pain (OFP) Patients to Clinicians Outside of Their Practices.

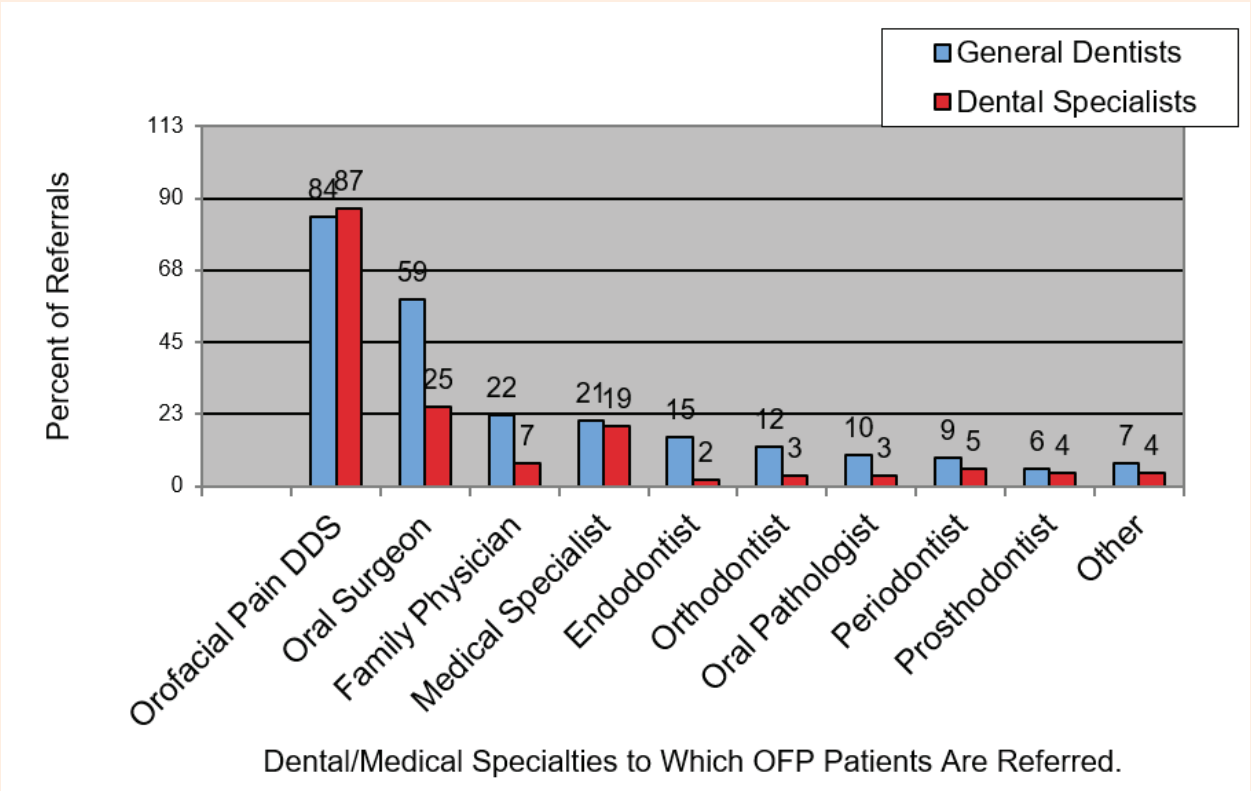

Figure 2: Referral Preferences of General Dentists and Dental Specialists for Orofacial Pain (OFP) Patients.

Figure 2 shows that approximately 85% of general dentists and dental specialists currently refer orofacial pain patients to orofacial pain dentists. Fifty-nine percent of general dentists also refer some of these patients to oral surgeons, but less than 25% of either group refers to the other specialties listed. The survey revealed that 93.7% of general dentists and 95.6% of dental specialists would prefer to refer their patients to an orofacial pain dentist with ADA specialty status, if such a person were available.

As to the reasons for referral of OFP patients, about one half or more of the general dentists and dental specialists indicated that they were not sufficiently trained, and that the orofacial disorders were too complex. One quarter to one third cited the difficulties in reimbursement, the lack of equipment and the time required to provide these services (Figure 3).

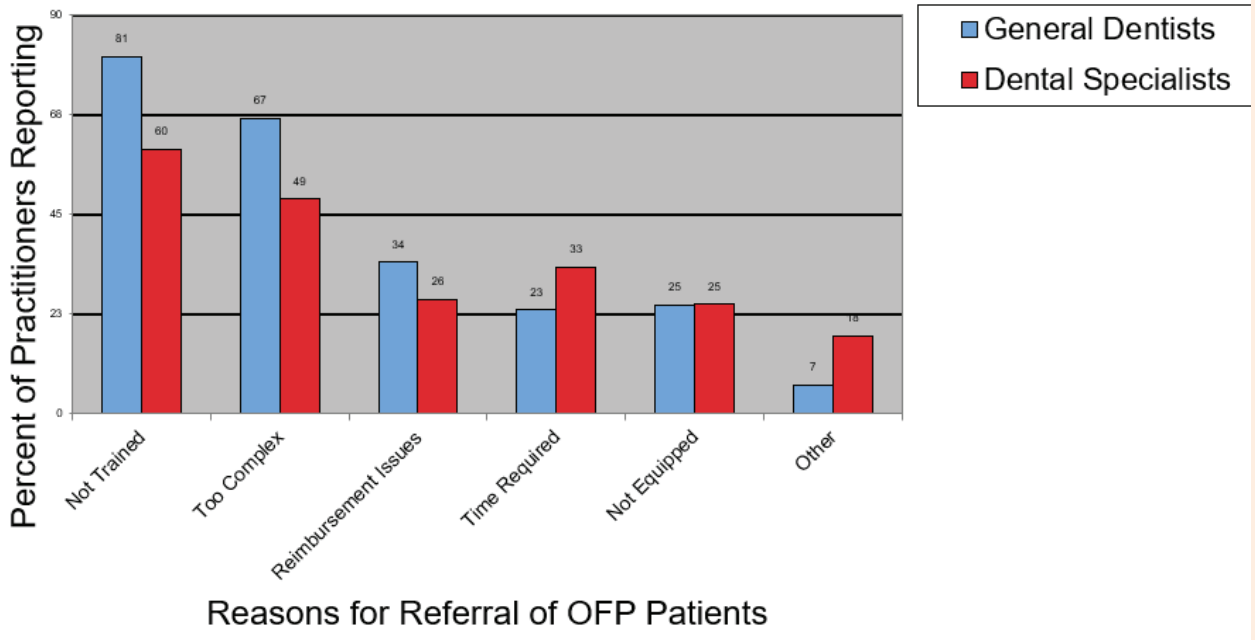

Figure 3: Reasons Reported by General Dentists and Dental Specialists for Referral of Orofacial Pain (OFP) Patients to Clinicians Outside of Their Practices.

Specialty status for the discipline of orofacial pain was supported by a 6 to 1 margin among dentists and dental specialists. Specifically, 62.9% of general dentists and 58.8% of dental specialists supported this specialty while 9.1% and 14.4%, respectively, were opposed. Nearly one fourth of this sample was undecided. Of the AAOP members, 119 out of 120 supported specialty status for this field.

As seen in Figure 4, orofacial pain dentists in this sample indicated that they see an average of 20.3 new OFP patients per month, with a mode of 10. Of these new patients, 53% had to wait less than two weeks for their appointment, 36% had a wait time of two to four weeks, and 11% were waiting longer than four weeks for their assessment. These OFP patients had already seen an average of 6.2 clinicians (mode = 2), and had experienced their pain an average of 3 years (mode of 2).

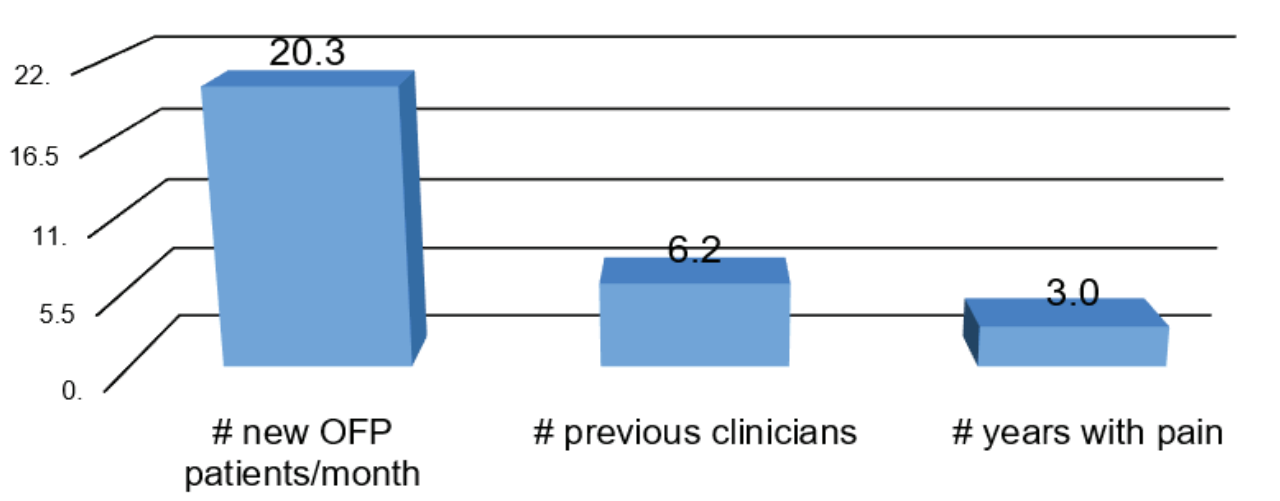

Figure 4: New OFP Patients Seen by Orofacial Pain Dentists: Average Number/Month, Number of Previous Clinicians and Number of Years in Pain.

Discussion

This study suggests that general dentists and dental specialists overwhelmingly prefer to refer patients with chronic orofacial pain disorders to orofacial pain dentists. This accords with the observation of Bohannen (3) that today's practitioners are "highly oriented toward and supported by a variety of specialists." This study also shows that orofacial pain dentists provide a high level of care for the complex chronic orofacial pain disorders. General dentists and dental specialists provide primarily palliative care for the less complex temporomandibular disorders, and cite their lack of training and experience as the principal reason for their practice preferences.

Methodological considerations

It has long been observed that the most willing and ready candidates for studies are those who have characteristics, or possess skills that are being studied. This response is analogous to the volunteer bias that is also the antithesis of the nonrespondent bias [19]. Because the volunteer bias is known for its association with positive health attitudes and behaviors, one would anticipate that OPD services would be less prevalent on the average among the nonrespondents [20]. It is not known, however, whether the observed differences in practice patterns between orofacial pain dentists and their non-AAOP colleagues would hold true for the nonrespondents in each of these groups. Furthermore, based on a 47% response rate, it is statistically impossible to generalize these current results to all the AAOP dentists, although, as noted above, it is reasonable to believe the nonresponders would be no better trained in OPD, or more active in this field. Finally, we do not know how Minnesota dentists compare to those in other states. We would anticipate that OPD practice patterns are not less prevalent in Minnesota than in the other states for two reasons: All undergraduate dental students have received formal training in TMD and orofacial pain since 1970. In addition, Minnesota was in 1987 the first state to mandate reimbursement for OPD services by medical insurance carriers [21].

The need for orofacial pain care providers.

Using data of a large health organization in Seattle, Von Korff and colleagues found that 12 % of the members had experienced a facial pain condition in the previous six months, that 23% of these had sought care, and that 9.1 % had experienced limitation of their activities due to the pain [10]. This portion (9.1%) of the 13 million people affected by OFP would represent about 1.2 million complex cases. It is estimated there are currently 500 orofacial pain dentists in private practice, or staff at hospitals and universities, who devote a significant part of their practice to this field. It is also estimated that a full-time orofacial pain dentist treats about 500 OFP cases per year [22]. Based on these figures, treatment for all the complex OFP cases at any given time would require about 2000 additional orofacial pain dentists. Not surprisingly, this figure is consistent with the number of specialists in other disciplines of dentistry [22]. Given the increasing demand for these services by patients presenting with non-complex disorders, a greater part of OFP care will also need to be rendered by general dentists as well as the practitioners of the existing dental specialties.

Limitations that dictate practice patterns

It is the responsibility of the dental profession to address the problems of orofacial pain sufferers. The first step is to recognize the facial pain conditions when they present. It is considered appropriate for all dental patients to receive a TMDs and orofacial pain screening examination that might typically include a questionnaire, brief history and an examination [23]. For a description of this screening examination, the reader can also refer to Okeson [24]. It must be recognized, however, that there are serious disincentives that can deter general dentists and dental specialists from serving OFP patients. These include problems related to diagnosis, treatment and reimbursement.

If a screening is positive for the likely presence of an orofacial disorder, then a comprehensive history, physical examination and behavioral/psychological assessment should be undertaken. Along with the recognition of the type of OFP that is present (Axis I diagnosis), there is a need to conceptualize signs and symptoms based on potential Axis II factors. Axis I relates to the physical disorder, while Axis II factors include the psychosocial, behavioral and functional disturbances common to complex chronic pain patients. The Axis II association may also become stronger as the duration of the chronic pain becomes greater, and the pain becomes more a part of the patient's daily routine. Dworkin and Massoth [25] have characterized these distinctions as disease versus illness. Disease would thus relate to pathologic changes and dysfunction, whereas illness and illness behaviors describe the patient's "subjective experience" that needs to be managed in the treatment of all chronic pain conditions. It has been shown for both dentists and physicians that their initial clinical impression is not typically adequate for identifying psychological problems [26]. The effects of psychological states such as stress, anxiety, depression and somatization on persistent pain have been extensively discussed in the literature [14,25,27,28]. Issues such as maladaptive behaviors, secondary gain and operant learning have also been identified as significant contributing factors that need to be addressed for some chronic pain conditions to improve [29,30].

Based on the diagnosis and prognosis of an orofacial pain condition, various multi-modal and multi-disciplinary treatment strategies have to be implemented [17]. Twenty-eight of the commonly used treatments are listed in Table 3. The problem is that these treatments include psychotropic and neuro-active medications, muscle, joint and neural blocks, rehabilitation procedures, and cognitive-behavioral strategies that are often not familiar to general dentists and dental specialists. Nonetheless, all dentists should be aware of the existence of such treatments and their indications [14].

While dental care by general dentists and existing dental specialties is often billed by procedure through dental codes, orofacial pain services are billed by time using the Current Regional Value System and Current Procedural Terms (CPT) medical codes. Over 20 states have passed legislation that places insurance coverage of orofacial pain disorders under medical insurance in a manner similar to some dental services in oral surgery and oral medicine. These rules are applied whether or not the services are provided by a dentist. Thus,(International Classification of Diseases) medical diagnosis codes are required along with ICD-11 (CPT medical codes, in addition to a patient accounting system that is different from that which is used in many dental offices.

Future considerations relative to OFP services

A large majority of general dentists and dental specialists indicated a lack of training in TMD and orofacial pain as the reason why they are not more involved in the treatment of these patients. Their responses summarized in Tables 2 and 3 corroborated this self-assessment.

Knowledge in evidence-based care for TMD and orofacial pain has expanded so rapidly that it has been difficult for any dentist to adapt to these changes without extensive continuing dental education. The same is true for the existing curriculums in pre- and post-doctoral dental programs where this training is nearly absent. Although chronic pain syndromes have been recognized for years, the concept of chronic pain has only recently been applied to orofacial pain. Chronic pain rehabilitation programs used in the treatment of orofacial pain have met with success similar to programs for chronic back pain [31]. This shift in knowledge has added to the skills and knowledge required of dentists to provide more successful care. Formal programs in dental education [32,33] and continuing education for dentistry [34] must respond to the need for this training. It is not reasonable to expect that all dentists should be trained to treat the most complex OFP cases [1]. However, many of these cases are less complex, and would respond favorably to simpler treatment strategies [13].

With the new standards for orofacial pain training, the Commission of Dental Accreditation requires all dental schools to provide TMD and orofacial pain training for all dental students. Thus, each dental school has a responsibility to be proactive in assuring that orofacial pain patients receive quality care. This will require encouraging pre- and post-doctoral programs to provide adequate training and experience for high quality diagnosis and treatment of these disorders. As clinical practice in orofacial pain disorders has escalated, ten U.S. dental schools have responded by developing an accredited 2-year program for advanced education in this field. More than twenty orofacial pain dentists are graduating from these programs every year. In view of the unquestionable need for this advanced training, ADA support for a specialty status in orofacial pain dentistry would improve care for OPD patients in several ways. First, the ADA would be able to ensure by means of their credentialing authority that clinicians who focus their practices in this field are well trained, knowledgeable and experienced. Secondly, this sense of recognition would encourage general dentists, dental specialists, and dental students to become better trained in this field. Thirdly, this credentialing process would be reassuring to the 94% of general dentists and 96% of dental specialists who indicated that they would prefer to refer OFP patients to an orofacial pain dentist with ADA specialty status. Tables 1, 2 and 3 demonstrate that the scope of OFP practice is already a de facto specialty, avoiding most overlap with the practice of general dentistry and existing dental specialties. It is important to remember that the field of OFP dentistry focuses primarily on complex chronic orofacial pain disorders. If we must conclude that it is not reasonable for all dentists to be prepared to treat the more complex cases (1), then we should also be ready to recognize those who make the effort to render these services.

Summary

At any given time, more than 13 million people in the U.S. suffer from an orofacial pain disorder that can progress to a condition with a significant personal and societal impact. An unacceptable number of Americans are still living through years of pain and multiple clinicians without resolution of their pain problems. In addition, the demand for treatment from this segment of our population is increasing. Although organized dentistry shares the responsibility for improving care for these people, this study provides evidence that the dental profession is not currently in a position to address the needs of all patients who may need treatment. It is concluded that changes are required, including an increase in the training opportunities for general dentists in orofacial pain disorders, and support for advanced dental training in orofacial pain. Finally, official support for a new specialty in orofacial pain would be a positive step toward encouraging more dentists to consider a career in orofacial pain dentistry, and ensuring they are appropriately trained. This survey suggests that orofacial pain dentistry is presently a de facto specialty, having little overlap with other dental practices. The well-trained orofacial pain specialist is an important link in the chain of services needed to maintain the American public's high confidence in the dental profession.

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