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Wesley E. Shankland II

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Patients Seeking Treatment for Craniofacial Pain: A Retrospective Study of 300 Patients

Wesley E. Shankland II, D.D.S., M.S.

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Address for correspondence:

Dr. Wesley E. Shankland II
TMJ and Facial Pain Center
158 A Commerce Park Dr.
Westerville, OH 43082
E-mail:
drwes@drshankland.com

ABSTRACT: Those engaged in any type of pain practice will encounter patients who have seen many practitioners. This is especially true for clinicians who treat craniofacial pain and temporomandibular disorders. In this retrospective study of 300 patients seeking treatment for various types of craniofacial pain, the average age was 43.05 years. A mean average of 3.92 clinicians was consulted with the range of practitioners being one to 26. The average time of pain was 4.15 years. Most of the subjects (210) were in the age groups 21 years to 60 years old. Females comprised 85.30% of the subjects with a mean average age of 43.43 years; 14.70% were male with a mean average age of 41.02 years.

Dr. Wesley E. Shankland, II attended Ohio State University and received his B.S. degree in biochemistry and zoology in 1975 and his D.D.S. degree in 1978. He has maintained a practice limited to the diagnosis and treatment of craniofacial pain and temporomandibular disorders since 1983 in Columbus, Ohio. Dr. Shankland returned to graduate school at Ohio State University and earned a masters degree in human anatomy in 1993. He is a past president of the American Academy of Craniofacial Pain.

Those engaged in any type of pain practice, be it one of the dental or medical specialties, chiropractic or physical therapy, understand and accept somewhat that a certain number of patients will have seen many practitioners and will have either received improper diagnoses or no diagnoses at all. This is especially true with craniofacial patients due to the anatomical complexities of the head, temporomandibular joint (TMJ) and facial regions, not to mention the various diagnostic skill levels of practitioners consulted.

Further, the costs of health care are escalating faster than employers can keep up. In 2005 (the latest year data are available), total national health expenditures rose 6.9 percent—two times the rate of inflation.¹ Total spending in 2005 was \$6,700 per person¹ and total health care spending represented 16% of the gross domestic product (GDP). In 2006, employer health insurance premiums increased by 7.7 percent—two times the rate of inflation. The annual premium for an employer health plan covering a family of four averaged nearly \$11,500. The annual premium for single coverage averaged over \$4,200.²

There are many reasons for the exponential rise in health care costs, the chief one being that hospital costs soared after the federal Medicare program began in 1966.³ Additional reasons for increasing health care costs

are patients seeing multiple practitioners and, unfortunately, misdiagnosis or multiple inaccurate diagnoses.

The numbers of patients seeking care from office to office or clinic to clinic are not well documented. Some patients simply want a second or third opinion,⁴ which is certainly their right. Many, being either dissatisfied or unsuccessful with traditional forms of therapy, consult alternative practitioners, which again, is their right. Such patient behavior is not unique to dentistry. Either out of desperation, because they were inquisitive or due to ease of access, many patients turned to the Internet for diagnostic information.⁵

The present retrospective study was based upon 300 randomly selected patients referred to a private practice in which patients with craniofacial pain and temporomandibular disorders were diagnosed and treated. The purpose of the study was to determine the number of clinical practitioners that patients see, on average, for treatment for craniofacial pain. A brief discussion will follow.

Materials and Methods

The charts of 300 patients referred to a craniofacial pain practice were randomly selected from over 10,000 records. The number of previous practitioners consulted (e.g., dentists, physicians, chiropractors, physical and massage therapists, alternative practitioners, psychologists and psychiatrists) was recorded in the personal history form completed by each patient. In addition, the length of time the patient had been suffering with the chief complaint(s), the patient's gender, race and marital status were also recorded. These numbers were then verified verbally during the patient's interview. If the precise number of previous practitioners was not known or if the precise length of time of the complaints was not known, the records of these patients were not included in this study. Every attempt was made to be certain of the accuracy of these data.

In addition, extreme numbers of doctors consulted (e.g., 30 in one case and 35 in another) were not included so as not to unnaturally skew the results.

Results

Of the 300 patients in this study, the mean age of all subjects was 43.05 year (standard deviation 14.07 years). Two hundred fifty-six (256) (85.3%) were female (age range 14 years to 86 years; mean age 43.43 years and standard deviation 14.22) and 44 (14.7%) were male (age range 18 years to 82; mean age 41.02 years and standard deviation 13.09). The mean average number of practitioners consulted previously was 3.92, with a standard

deviation of 2.94. The median number of practitioners consulted was three and the mode was also three. The range of practitioners consulted was one to 26.

The mean average time of suffering with craniofacial or temporomandibular pain was 4.15 years (standard deviation 5.10 years). The range was one week to 20 years. Most of the subjects (210) were in the age group 21 to 60 years old. The breakdown of ages is listed in **Figure 1**.

There were multiple diagnoses given to these patients, the more common of which are listed in **Table 1**.

One hundred (100) (33.3%) of the subjects were single and 188 (62.70%) were married. Eight (2.70%) were divorced and four (1.30%) were widowed. Two-hundred eighty (96%) were Caucasian, 2.3% African-American, and the remainder was comprised of other ethnic groups (e.g., Middle-Eastern, Latino and Asian Indian).

Discussion

Obviously, in practices that see a fair number of craniofacial pain patients, seeing patients who have seen multiple practitioners is not uncommon. Also, many of these patients will have had numerous diagnoses and unfortunately, many will have had various forms of treatment.⁶ Had those treatments been successful, they probably would not be seeking further care.

In a retrospective study of 257 patients afflicted with temporomandibular disorders, Glaros, et al.⁷ reported that each patient had seen, on average, at least three practitioners. The number of practitioners consulted in this study, 3.92, is quite similar.

The ages in this study were also similar to those reported in a large study by Cooper and Kleinberg⁸ and others.⁹ The most common age group in our study was 41 to 50 years old and the least common age group was 81 to 90 years old, which corresponds to the findings of Kuttilla, et al.⁹

Turp, et al.¹⁰ reported that patients with persistent facial pain see a large number of different providers, and that nonmedical and/or nondental treatment approaches are common. They further reported that if the first provider was a physician, chances were greater that the subsequent provider was a physician rather than a dentist. Conversely, if a dentist was first consulted, generally the second doctor consulted was also a dentist. Unfortunately, most dentists, and certainly most physicians, have a very poor understanding of craniofacial pain and temporomandibular disorders.

Because facial pain can be caused by so many different types of diseases and disorders, it is understandable that many patients consult a variety of practitioners. For facial

Age Distribution by Decades

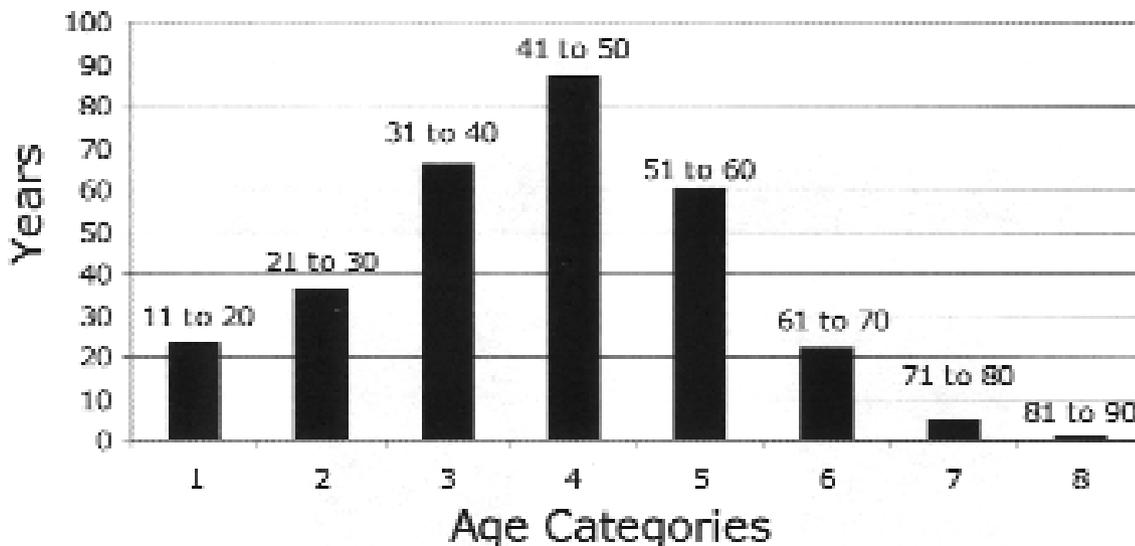


Figure 1
Age distribution by decades of 300 participants.

or headache pain, they may consult a primary care physician or a neurologist; for ear pain, noises and pressure in the ears, otolaryngologists may be seen; for neck and head pain, chiropractors, physical or massage therapists may be consulted; and for oral pain or odontalgia, dentists of all specialties are generally consulted. However, unless these various clinicians have training and expertise with craniofacial pain and temporomandibular disorders,

patients (1) do not receive a proper diagnosis and (2) generally do not receive efficacious treatment.

In this study, most diagnoses were as reported by the patients. **Table 1** lists common prior diagnoses as reported by the subjects of study. If a diagnosis was assigned by a physician, often it was headache, arthritis, trigeminal neuralgia, depression and/or anxiety or fibromyalgia. Dentists usually diagnosed patients with internal derangements of the temporomandibular joint, neuralgia inducing cavitation osteonecrosis (NICO), “TMJ” or myofascial pain. Common diagnoses used by both physicians and dentists were atypical facial pain and sinusitis.

Patients who seek a second opinion do so out of simple frustration. Many turn to alternative practitioners.^{11,12} For this reason, some clinics and hospitals are creating alternative clinics within traditional facilities.¹³ Yet, accurate diagnoses for craniofacial and temporomandibular disorders are still lacking, whether a traditional or alternative practitioner is consulted.

The numbers of people afflicted with craniofacial pain are large. In one study of people in Hong Kong, in a telephone survey of 1,222 persons, orofacial pain symptoms were reported by 41.6% of respondents when tooth sensitivity was included and by 24.2% when tooth sensitivity was excluded.¹⁴ In one study¹⁵ in the UK of 229 consecutive patients, 68.8% of respondents reported orofacial and episodic TMJ pain. In another UK study,¹⁶ 646 of 2504

Table 1
Common Diagnoses Assigned Previously

- “TMJ”
- Headache
- Arthritis
- Trigeminal neuralgia
- Myofascial pain
- Sinusitis
- Neuralgia inducing cavitation osteonecrosis
- Fibromyalgia
- Internal derangement of the TMJ
- Depression or anxiety
- Chronic fatigue syndrome
- Atypical facial pain

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patients surveyed reported 26% were afflicted with orofacial pain. Agerberg and Carlsson¹⁷ reported that 24% in their study reported facial pain and headache. These three studies demonstrate that there is no consistent data concerning the prevalence of craniofacial pain, but it can be concluded that the numbers of those reporting craniofacial pain are significant. If 24% is an accurate number, are we not as a profession sorely lacking if American dentists (oral surgeons, orthodontists, periodontists, prosthodontists, and general practitioners) believe that only 13.9%¹⁸ of their patients suffer from such pain? Is it any wonder that in one study, patients had suffered for over 2.8 years and in the current study⁸ for over four years?

Actual costs of chronic pain are difficult to determine. Friction and Schiffman¹⁹ have estimated that in 1995, the annual cost for treating craniofacial pain and temporomandibular disorders might have been as high as 32 billion dollars, or 40% of the annual cost of treating chronic pain. White, et al.²⁰ agreed with this estimate by reporting that in 1996, 40% of health care costs to a specific health maintenance organization were attributable to TMD treatment. Snowden, et al.²¹ estimated that costs for oral conditions (specific diagnoses were not listed) treated in the medical care system in 1996 were approximately 21.4 billion dollars in medical costs and 74.4 billion dollars in wage and household work loss costs. Now, more than a decade later, one can only imagine what percentage of annual healthcare costs craniofacial pain treatment may comprise.

As a profession and especially as a subset of that profession, we need to ask ourselves why so many patients receive inadequate or incorrect diagnoses or no diagnosis at all. Unfortunately, receiving no diagnosis is not uncommon.⁷ Such inadequacies in the diagnostic procedure only serve to drive up the cost of medical care, deny patients proper treatment and increase frustration and dissatisfaction with the health care system. What might we do collectively to remedy these problems?

Our own profession cannot agree on the etiologies or treatment of the various craniofacial pain disorders nor if an orofacial pain specialty is needed in dentistry.¹⁵ Many dentists and physicians believe these patients suffer primarily because they have high levels of psychological distress²² and subsequent somatization.^{23,24} Such attitudes force many patients to consult multiple practitioners. Glaros, et al.⁷ reported that 20% in their study were told they had no diagnosable condition and were told to seek additional consultation elsewhere. Patients suffering with various craniofacial pain disorders do seem to suffer more from depression and somatization,²⁵ but there is little if any evidence that craniofacial pain patients fre-

quently consult dentists or physicians without concurrent physical complaints.²⁶ They may need, in fact, to consult a psychologist, but in our clinical experience, psychological issues alone rarely drive patients to multiple practitioners for craniofacial pain.

In this simple, but revealing study of 300 patients, a mean number of 3.92 practitioners was consulted concerning craniofacial and temporomandibular pain. This number is similar to the report of 3.23 patients in a study of 257 patients presented to a university based facial pain center⁷ and 4.88 in a study of 206 consecutive patients reported by Turp, et al.¹⁰ There are many reasons why so many clinicians were consulted. The chief reason was probably a lack of understanding and experience concerning craniofacial pain and TMD, as well as inconsistencies in teaching of these concepts.

As a profession, we need to (1) develop consistent predoctoral and residency programs, (2) crucify our individual attitudes and recognize that there are a multitude of efficacious treatment modalities, (3) tastefully market our skills and expertise to others of our profession and of the medical and chiropractic communities and (4) cease our in-fighting and unmovable standards, agreeing to disagree, but always striving for the best for our patients.

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