



Self-medication in patients with temporomandibular disorders

Automedicação em pacientes com desordens temporomandibulares

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ABSTRACT

Objective: Temporomandibular Disorders (TMD) are a set of painful and / or functional clinical problems that affect the joints and / or muscles of the orofacial region. The practice of self-medication, defined as the consumption of unprescribed drugs, is explained in most TMD patient cases by the occurrence of constant pain, producing discomfort and fatigue, while performing essential functions such as chewing, speaking, and swallowing, causing a drop in the quality of life of patients who have this disorder. Because of this, many see medication as a quick and sufficient means of addressing the problem of pain, and do not seek help from a professional. This study therefore aimed to evaluate, through guided interviews, the practice of self-medication in patients with temporomandibular disorder. **Material and Methods:** The researchers interviewed 115 patients who were referred for treatment at the Diagnosis and Treatment Service for Patients with Temporomandibular Disorder (TMJ Service), School of Dentistry, Federal University of Juiz de Fora. **Results:** In the sample studied there was a high prevalence of self-medication among the patients interviewed, of whom 71.3% used medication without a prescription, with a majority being female (84.14%). Headache was the main complaint reported by patients who self-medicated (39.53%), analgesics the most used drug class (58.13%), and most of the pain relief drugs were acquired through old prescriptions (40.25%). **Conclusion:** Thus, this work emphasizes the importance of guiding the patient and the professional regarding this practice.

KEYWORDS

Temporomandibular disorders; Facial pain; Self-medication.

RESUMO

Objetivo: Desordem temporomandibular (DTM), é um conjunto de problemas clínicos dolorosos e/ou funcionais, que acometem as articulações e/ou músculos da região orofacial. A prática de automedicação, definida como o consumo de medicamentos sem prescrição médica, na maioria dos casos de pacientes com DTM, justifica-se pela ocorrência de dores constantes, que trazem desconforto e cansaço durante a realização de importantes funções como a mastigação, fala e deglutição, gerando uma queda na qualidade de vida dos pacientes que apresentam esse distúrbio. Frente a isso, muitos veem a medicação como meio mais rápido e suficiente para resolver o problema da dor e não procuram ajuda de um profissional. O presente estudo teve, portanto, como objetivo, avaliar por meio de entrevistas guiadas a prática da automedicação em pacientes com desordem temporomandibular. **Material e Métodos:** Foram entrevistados 115 pacientes que foram encaminhados para tratamento no Serviço de Diagnóstico e Atendimento a Pacientes com Desordem temporomandibular (Serviço ATM) da Faculdade de Odontologia da Universidade Federal de Juiz de Fora. **Resultados:** Na amostra avaliada houve uma alta prevalência de automedicação entre os pacientes entrevistados, dos quais 71,3% utilizaram medicação sem receita médica, sendo a maioria do sexo feminino (84,14%). A cefaléia foi a principal queixa relatada pelos pacientes que se automedicaram (39,53%), os analgésicos a classe medicamentosa mais utilizada (58,13%) e a maioria das medicações para alívio da dor foram adquiridas por meio de receitas antigas (40,25%). **Conclusão:** Enfatiza-se desta forma, a importância de orientar o paciente e o profissional com relação a esta prática.

PALAVRAS-CHAVE

Desordens temporomandibulares; Dor orofacial; Automedicação.

INTRODUCTION

The stomatognathic system is an extremely complex interrelated system, composed of muscles, bones, ligaments, teeth, nerves, and the temporomandibular joint (TMJ). This system can be afflicted by a number of clinical problems of multifactorial origin called temporomandibular disorders (TMD). TMD are often the cause of pain and / or dysfunction of the joints and muscles of the orofacial area, being diagnosed by their characteristic signs and symptoms, with the most common signs: joint noises like clicks or crackles, and irregular and limited function of the jaw, and the symptoms most commonly reported: arthralgia, pain and / or fatigue in the muscles of mastication, headache, muffling and / or ringing of the ears. Currently there is a consensus that structural, functional, and psychological factors, such as disease or trauma in the joint, hormonal changes, parafunctional habits, and emotional stress are involved in the etiology of TMD [1-3].

The clinical manifestations of the signs and symptoms, can be classified as originating in joint and / or muscle tissue, and are considered a distinct sub-group of musculoskeletal and rheumatologic disorders, which represent a major cause of non-dental pain in the orofacial region [1,4].

In accordance to the International Association for the Study of Pain (IASP), pain is defined as an unpleasant sensory and emotional experience, associated with actual or potential tissue damage, or described in terms of such damage. Under this definition, not only the physical and chemical components involved in the phenomenon of pain are considered, but also subjective and psychological aspects that are fundamental to the understanding of pain complaints, especially in patients with chronic pain [5].

Many of the diagnoses associated with temporomandibular disorders have chronic pain as a chief complaint [6]. The quality

of life of patients with TMD can be directly related to control of orofacial pain. TMD pain mainly afflicts the masticatory muscles and the temporomandibular joint, and can increase in intensity with jaw function during, for example, chewing hard foods, yawning, and speaking. The improvement or remission of such pain should be the priority in treatment, utilizing treatment modalities such as stabilization splints, acupuncture, medication, needling of trigger points, physiotherapy, and other physical resources such as heat, cold, and also laser therapy [5,7,8].

Among the proposed therapies, drug therapy, when used under professional guidance, can promote patient comfort and rehabilitation by reducing or eliminating the pain from TMD, however, it does not provide a cure in most cases. The major classes of medication used to control TMD are non-opioid analgesics, NSAIDs, corticosteroids, anxiolytics, antidepressants, and muscle relaxants [9-11].

Self-medication, which is defined as obtaining and consuming medications without professional guidance in most TMD patient cases, may be explained by the occurrence of constant pain that brings on discomfort and fatigue while performing essential functions such as chewing, speaking, and swallowing, thus causing a drop in the quality of life of patients with this disorder [12-15]. Because of this, many people see medication as a quick and sufficient means of addressing the problem and thus do not seek professional help. The self-medication is common throughout the world [16-18].

This is an extremely common practice in Brazil and can entail considerable risks in the misuse of medication with regard to its cumulative effect, overdose. Excessive use of drugs, in addition to being ineffective with respect to the desired improvement, can further the development of drug addiction, contribute to the onset of chronic pain, and cause side effects such as, for example, hypersensitivity, stomach bleeding, behavioral disorders, nausea,

drowsiness, headache, masking of disease symptoms, among others [8,19,20].

In accordance with the statements above, this study aimed to evaluate the practice of self-medication by patients with TMD, since it is essential to understand and investigate the reasons, complaints, and issues involved in the adoption of this habit.

MATERIAL AND METHODS

To carry out this study, which aimed to assess the prevalence and practice of self-medication in patients with TMD, guided interviews were done with 115 patients, over 18 years of age, who were referred for treatment at the Diagnosis and Treatment Service for Patients with Temporomandibular Disorders (TMJ Service), School of Dentistry, Federal University of Juiz de Fora. With respect to patient selection, no distinction was made for race or gender, nor were any criteria for exclusion established.

This study was approved by the Ethics Committee on Human Research, Federal University of Juiz de Fora, under protocol 215/2010, and to participate in the study patients signed an informed consent form, indicating they were aware of the study's operational procedures and were agreeing to participate in the project.

The guided interviews were composed of 14 objective questions, formulated by one of the researchers responsible for the study, related to self-medication in patients with Temporomandibular Disorder, addressing among others, such key topics as: what is the chief complaint of pain and / or discomfort by patients who used medication without a medical or dental prescription, what is the main drug class used by these patients without professional supervision, what is the main reason that leads them to self-medicate, what was the reason for the choice of medication, how did they obtain

knowledge of the drug's mechanisms of action. The interviews were administered by a researcher participating in the study, who clarified any patient doubts regarding the questions, during the interviews.

Upon completion of the guided interviews, the data were tabulated and the responses evaluated and reported in percentages.

RESULTS

Guided interviews were conducted with 115 patients who were referred for treatment at the Diagnosis and Treatment Service for Patients with Temporomandibular Disorders (TMJ Service), School of Dentistry, Federal University of Juiz de Fora. From this patient total, 81.74% were female and 18.26% male.

Of the total patients evaluated, 71.3% said they had performed self-medication because of pain and / or dysfunction from TMD. Of the patients who self-medicated (82), 84.15% were female and 15.85% were male. The main complaints reported by patients who had self-medicated were: headache (39.53%), facial pain (28.48%), otalgia (23.25%), and arthralgia (8.72%). Analgesics were the main drug used by patients who self-medicated (58.13%). Muscle relaxant were used by 31% of patients who self-medication, anti-inflammatory (6.2%), antibiotic (3.1%) and antidepressant (1.55%).

Regarding the reason that led the patient to choose the drug class used, 65.86% reported having previous experience with the drug, and 40.25% reported having acquired knowledge of the effects of the drugs, through guidance related to previous prescriptions. Among the patients who self-medicated, 78.04% reported still having painful symptoms related to TMD, at the time of the interview, and 53.66% reported they were still performing self-medication (Table 1).

Table 1 - Characteristics of the practice of self medication by patients diagnosed with TMD. Juiz de Fora, MG, 2012

Variables	N	%
Initial attitude towards pain / discomfort related to TMD		
Ignored	73	63.48
Sought professional help (dentist, neurologist, general practitioner)	42	36.52
Reason for self-medicating		
More practical	62	75.6
Difficult to access professional help	13	15.86
Lack of time	7	8.54
Reason for choice of drug class		
Prior experience with the drug	55	65.86
Recommended by lay person	27	34.14
Way you acquired information about the drug		
Previous prescriptions	33	40.25
Through layman recommendation	26	31.7
On my own	23	28.05
Improvement of symptoms after self-medication		
Yes	65	78.04
No	17	21.96
Continuing to self-medicate		
Yes	44	53.66
No	38	46.34
Symptoms at the time of interview		
Yes	64	78.04%
No	18	21.96%

Data from present study.

DISCUSSION

Self-medication is defined as the use of drugs without a doctor's prescription or guidance, or drug consumption recommended by unqualified persons, such as friends, family, or even pharmacy clerks. Whereas no drug is harmless to the body, self-medication is considered a practice potentially harmful to health, which can lead to undesirable effects or induced illnesses, thus presenting a problem to be studied [13,18,21].

Self-medication is a common phenomenon in self-care health cases, whose occurrence and distribution are, naturally, related to the organization of the health system of each country the indiscriminate use of drugs carries direct and indirect risks to the population, which contributes to self-medication being an important public health problem [16-18].

Suleman, Ketsela, and Mekonnen [22] pointed out that the consumer demand for drugs comes about, and is met, owing to external factors such as culture, the economy, and legal aspects that facilitate or do not hinder the acquisition of drugs without presenting a doctor's prescription. Retail drug stores and private clinics are the main sources of drugs for self-medication, and the availability of drugs in informal sectors contributes to the increase in this practice [16].

Initial treatment of TMD aims to reduce and control pain, in which pharmacological agents, when used properly, can promote the comfort and rehabilitation of the patient, which does not happen in cases of self-medication [8,11].

Temporomandibular disorders (TMD) constitute a condition of multifactorial origin, in which there can occur pain and / or dysfunction in the masticatory muscles, in the TMJ, or in both [1].

Epidemiological studies have shown that the prevalence of TMD is higher in women, both in complaint, and in seeking treatment.

These data can be explained by the presence of estrogen receptors in TMJ tissue, which may be potential targets of sex hormones, and be influenced directly or indirectly by the different plasma levels of these hormones. Also noteworthy is the greater concern women have with their symptoms, their higher susceptibility to psychosomatic stress, and the influence of oral contraceptives [23-25]. In this study, a higher prevalence of female patients can also be verified, since, of the 115 sample participants, 81.74% were female.

Clinical manifestation of temporomandibular disorders is mainly characterized by pain in the face, arthralgia, muffling and / or ringing of the ears, pain and / or fatigue in the muscles of mastication, tension-type headache [1,2].

In the study by Felício et al. [26], which investigated the main signs and symptoms of 42 TMD patients, the frequency of headache among patients with TMD was significant (69%). In the present study, headache was the main complaint reported by patients who sought treatment (73.04%), and the main complaint of patients who self-medicated (39.53%).

De Leeuw and Klasser [15] pointed out that adults seeking treatment for TMD have, with more significant frequency, a complicated and extensive medical history when compared to adults who seek routine dental treatment. The authors emphasized that due to this characteristic, individuals seeking treatment for TMD pain use more pharmaceuticals, compared to a group not seeking treatment. In the present study, it was found that 36.52% of patients evaluated underwent one or more consultations or treatments with other specialists, mainly dental surgeons, neurologists, otolaryngologists, and primary care physicians, before seeking treatment at a service specialized in treating TMD. The same specialties were also the most sought after by patients evaluated in the study by Felício et al. [26].

Upon evaluating the use of medications in a sample of patients with diagnoses associated with TMD, Cahlin, Samuelsson, and Dahlström [27] found a higher use of medication (51%) in this group than in the control group (36%).

With regard to gender, in this study, from the total number of patients (115) who sought the Treatment Service for Patients with Temporomandibular Disorders (School of Dentistry / UFJF), 94 (81.74%) were female and 21 (18.26 %) were male, corroborating with the findings of Barros et al. [28], which, investigating the relationship between gender and TMD severity, found their sample of patients was 83.1% female and 16.9% male. The practice of self-medication was verified at a considerable prevalence in both genders, where, of 94 women in total, 69 (73.04%) self-medicated, and of the 21 men evaluated, 13 (62%) used medication on their own.

According to Nilsson, Drangsholt, and List [29], studying the impact of TMD across age groups, TMD pain had greater negative aspects for girls compared to boys. However, according to Barros et al. [28], in a study that evaluated the impact of Orofacial Pain on the quality of life of TMD patients, women showed a change in quality of life similar to men in most of the aspects investigated.

Regarding drug class, the one most used by patients that self-medicated was analgesics (58.13%), including Novalgina®, Neosaldina®, Dipirona® e Paracetamol®, which corroborates the findings of Giroto, Matos, and Oliveira [30] in a study on the practice of self-medication among elderly patients at an outpatient clinic, Elderly Care at the Catholic University of Brasília Hospital, in which analgesics were the drugs mainly used (61.3%).

According Dionne and Gordon [31], prescriptions indicating the use of analgesics, "as needed", should not be written, as they may lead patients into tolerance and dependency due to lack of dosage control, which can be

commonly seen in cases of self-medication. Accordance to Okeson [8], since many symptoms present in TMD are periodic or cyclical, there is a tendency to prescribe drugs on an “as needed” basis, and this type of control pushes the patient toward drug abuse, which can lead to physical or psychological dependency. Furthermore, according to the author, no drug alone can be effective for the entire spectrum of TMD, and the misuse and abuse of drugs is a concern in the pharmacological treatment of TMD [31]. Analgesics are taken once a week or more by 22% to 25% of adolescents and one in four of them are absent from school once a month because of TMD pain [32-34].

The inappropriate use of drugs not considered harmful by the population, but as analgesics, can lead to various consequences including: masking of symptoms, hypersensitivity reactions, dependency, gastrointestinal bleeding, withdrawal symptoms, and even increase the risk of certain cancers [19,21,35,36].

Sobreira and Zampier [11] highlighted the side effects of muscle relaxants, such as a capacity to produce dependency, sedation, and depression. In the present study, 31% of the patients who self-medicated used this type of medicine, consuming mainly Dorflex[®], and Tandrilax[®].

Knowledge about the side effects of the drugs used, in this study, was acquired mainly through previous prescriptions (40.25%). In the study by Suleman, Ketsela, and Mekonnen [22], 80.6% of the individuals who self-medicated had no information on the potential adverse effects of the drug.

Regarding the choice of medication type, according to the reports of the patients evaluated in this study, in 65.86% of the cases, this was attributed to prior experience with the medication, and in 34.14%, to the influence of lay people such as friends, family, or pharmacy clerks. These findings corroborate the results from Vilarino et al. [37], where in 35.3% of self-medication cases, recommendations were made

by friends, family, or pharmacy clerks. In the Arrais et al. [38] study, the choice of medications was also based on the recommendation of lay people in the majority of self-medication cases (51%), with a notable prevalence of previous prescriptions (40%) as well.

According to Hersh, Balasubramaniam, and Pinto [9], in a study that evaluated the pharmacological treatment of TMD, NSAIDs were the drug of first choice in the prescriptions written by professionals. The authors emphasized that drug therapy should only be used when strictly necessary, and that the purpose of prescribing drugs in cases of chronic TMD pain is not to cure the disorder, but is intended to help patients manage their discomfort or dysfunction during a short period of time. Anti-inflammatory drugs, in the present study, did not show a significant prevalence of consumption, being observed in only 6.2% of cases of patients who self-medicated.

According Sobreira and Zampier [11], the intensity and nature of the pain directly influence the choice of drug to be used, determining which classes of drugs are effective, the duration of use, and side effects, it being the professional's responsibility to be properly familiar with the drug and with the patient, such that effectiveness and safety are guaranteed, which does not occur in cases of self-medication. According to the authors, before selecting the drug for TMD treatment, it is essential to evaluate the characteristics of the pain, such as: origin (muscle or joint), duration (acute or chronic), and intensity (mild, moderate, or severe). The authors further pointed out that the role of pharmacology in TMD is, in most instances, adjuvant, its most effective indication being part of a broader treatment plan, involving other treatment options, such as stabilization splints, psychological monitoring, physical therapy, and self-care.

As regards improvement of symptoms, in this study, 79.27% of patients reported improvement with self-medication, yet only 21.96% of patients who self-medicated reported

not having any more pain symptoms, at the time of interview. It is noteworthy that acute symptom TMD can evolve into a chronic symptom case if not treated early or if the treatment taken is unsuccessful, and self-medication is a practice that can foster this development [8,39].

Acute conditions of recent onset are often resolved more effectively if the correct treatment is instituted immediately [40]. According to Okeson [8] patients with TMD pain, especially if chronic, present histories with a more extensive search for health care, continuous use of drugs, various treatments undergone, higher levels of anxiety and depression, which can contribute to the onset and perpetuation of pain. Patients in chronic TMD pain, in most cases, report having undergone quite unsatisfactory treatments.

CONCLUSION

The high prevalence of self-medicating patients (71.3%), as well as the high prevalence of patients at the time of the interview who still had pain symptoms (78.04%), and the prevalence of patients who were still performing self-medication (53.66%), emphasize the importance of awareness among patients, dental surgeons, and health professionals responsible for the treatment of TMD, concerning self-medication. What is important, therefore, is the clinical relevance of the correct diagnosis of pain / dysfunction, which should be done in a proper manner by a professional and not by the patient, so that the complaint is treated effectively, and quality of life is recovered without any occurrence of undesirable consequences from self-medication, such as drug dependency, and in many cases the onset of chronic temporomandibular disorders.

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