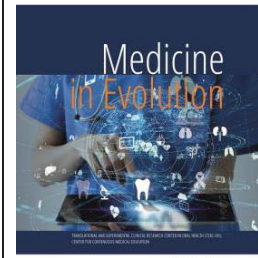


# The attitude regarding dental pain among a group of Romanian adults



Sfeatcu R.<sup>1</sup>, Didilescu A.<sup>2</sup>, Dimciu A.<sup>3</sup>, Oancea R.<sup>4</sup>, Cărămidă M.<sup>5</sup>

<sup>1</sup>Assoc. Professor, Oral Health and Community Dentistry Department, Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>2</sup>Professor, Embriology Department, Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>3</sup>Student, Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

<sup>4</sup>Professor, Preventive, Community Dentistry and Oral Health Department, "Victor Babeş" University of Medicine and Pharmacy, Timisoara, Romania

<sup>5</sup>Teaching Assistant, Oral Health and Community Dentistry Department, Faculty of Dentistry, "Carol Davila" University of Medicine and Pharmacy, Bucharest, Romania

Correspondence to:

Name: Didilescu Andreea

Address: Eroii Sanitari Street no. 8, Bucharest, Romania

Phone: +40 722536798

E-mail address: andreea.didilescu@umfcd.ro

## Abstract

Dental pain is a common symptom for oral conditions and most frequently caused by the dental disease. The aim of the present study was the assessment of Romanian adult patients' attitude toward dental pain. Material and method: the cross-sectional study was conducted in 2022-2023 on a sample of 200 adults using an on-line self-administered questionnaire. Results showed that 32.2% of the participants experienced dental pain at least 1 time/year, and the most frequent approaches were scheduling a dental visit (67.5%) and self-medication (42.5%). Only 29% visited the dental office as soon as the pain was felt and the main reason for postponing was the costs of the dental treatments. Analgesics were the preferred medicine for pain management (74%), most frequently ibuprofen (59.5%). Conclusion: Participants in the present showed a suboptimal attitude toward dental pain, tending to postpone the dental visits to address the condition and self-medication with analgesics was largely observed.

**Keywords:** oral health, dental pain, self-medication, dental attendance

## INTRODUCTION

Dental pain is one of the most commonly met symptoms of oral diseases [1]. Although odontogenic pain could be caused by dental caries as well as traumatic lesions such as tooth fracture or dentine hypersensitivity after gingival recession and root dentine exposure [2], it is most frequently present because of the presence of cavities [3,4] because of the high prevalence of this specific dental disease [5]. Dental pain is present in different stages of dental caries evolution: cavity extended to dentinal layer with a reversible inflammation of the endodontic system, cavity complicated with pulpitis on a vital tooth, or in case of involvement of the periapical tissue when the inflammation extends beyond the endodontic space [6-8]. Unfortunately, dental caries has a high prevalence both for temporary and permanent dentition [9], therefore dental pain is an often symptom.

The presence of dental pain has a significant negative impact on the quality of life, affecting not only the functional role of the oral cavity but also the psychological status and social activity [10,11].

However, dental pain is the most frequent reason for dental office attendance [12,13]. This, in spite of the fact that when this symptom appears it is a sign that the dental caries evolved beyond the enamel and reached at least the dentine [8]. Thus, it is a sign of late presentation at the dental office, and a neglected attitude toward the dental attendance [14].

Dental pain could last from a few seconds to hours, lasting longer with the increase in the severity and extension of dental caries [15]. Cold, hot, sweet and pressure in the longitudinal axis of the tooth are the most frequent stimuli for dental pain [8]. On the other hand, in the least extended lesion the pain stops when the stimulus is removed while in more advanced phases the pain is controlled only with analgesic medication [8]. Antibiotics are recommended only in the case of the most serious phases of dental caries, complicated with infection [8].

Thus, in order prevent the dental pain it is recommended for patients to respect the recommended intervals for dental visits so that the diagnosis of dental caries to be established as early as possible, is incipient, non-carious stage or in phase when the dental caries is superficial, affecting only the enamel layer. The presence of dental pain as a symptom of dental caries is a sign of neglect towards oral health and dental attendance because of late detection of the disease.

### *Aim and objectives*

The aim of the present study was to assess the frequency of dental pain and the attitude adopted among a group of Romanian adults.

## MATERIAL AND METHODS

The present survey was conducted between December 2022 and January 2023 on a sample of 200 Romanian adults. The survey used for the assessment a questionnaire edited and distributed via internet, with 18 questions, both open and close-ended. The inclusion criteria was the age of at least 18 years and there were excluded participants who worked or studied in the dental field. The filling-in time was 5-10 minutes. All the invited participants were described the aim of the study and were presented the terms of participation according to the Declaration of Helsinki. From the 204 adults who completed the form, 4 were excluded based on the inclusion and exclusion criteria and the final sample was composed of 200 subjects.

## RESULTS

The subjects in the present study had an age varying between 19 and 68 years and a mean age of  $30 \pm 10.4$  years. The group was represented by 72.5% females, 26.5% males and 1% did not offer an answer regarding the gender. Ninety two percent of participants were living in urban areas.

Among the participants, one third declared the presence of dental pain at least 1 time per year (Figure 1).

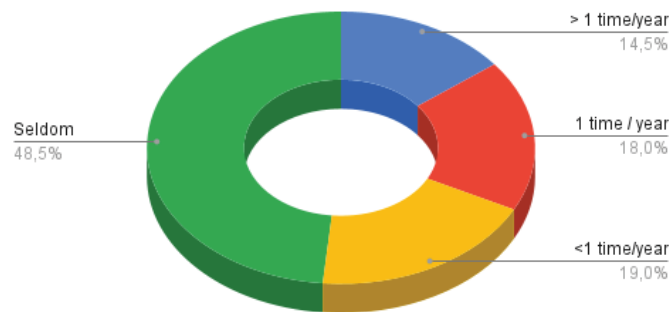


Figure 1. The frequency of dental pain

When it comes to the most frequent approach when participants to the study feel dental pain, only 67.5% (N=135) declare a visit to the dental office while 42.5% (N=85) chose to take medicines. Interestingly, about one quarter of subjects declared they just stay on hold without a specific action to control the pain (Figure 2).

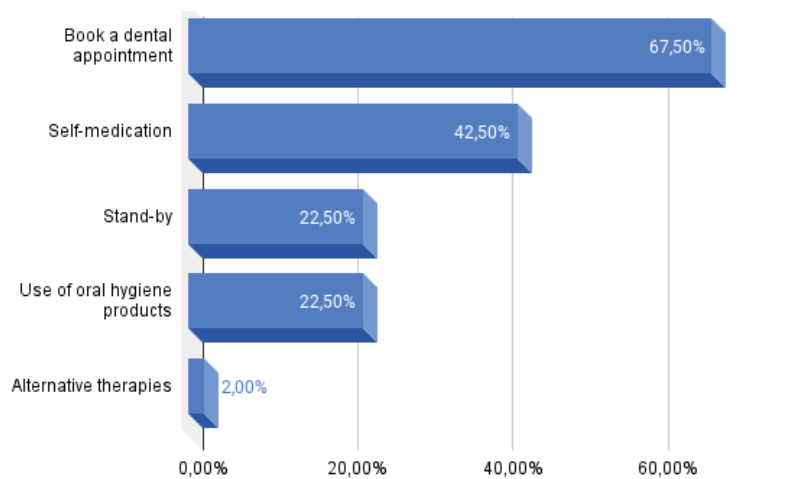


Figure 2. The approach in case of dental pain

Asked about the dental attendance when the dental pain was present, only 29% (N=58) declared they booked a dental appointment as soon as the pain is felt, while most of the subjects (57.5%) declared that they decided to go to the dentist after a few days of persistent pain (Table I). Regarding the main reason for postponing dental visits after the dental pain started, the most frequently mentioned answers were the lack of patients' availability (38.5%) as well as the high costs of dental treatments (31%) (Table I).

Table I. Attitude toward dental office attendance for dental pain

Attitude toward dental attendance for dental pain	% (N)
<b>Timing of dental office attendance for dental pain</b>	
<i>After a few days of dental pain</i>	57.5% (115)
<i>As soon as the dental pain is felt</i>	29% (58)
<i>After a few recurrent episodes of dental pain</i>	10% (20)
<i>When the dental pain evolves to infection</i>	3% (6)
<i>Never</i>	0.5% (1)
<b>Main reason for postponed dental attendance for dental pain</b>	
<i>Lack of necessary time for dental visits</i>	38.5% (77)
<i>High costs of dental treatments</i>	31% (62)
<i>Dental anxiety</i>	23.5% (47)
<i>Lack of felt need of dental treatment</i>	16% (32)
<i>Self-medication was an easier solution</i>	6% (12)
<i>Self-medication was efficient in previous episodes of dental pain</i>	1.5% (3)
<i>Lack of access to dental offices</i>	1.5% (3)

In regards to the medicine taken for pain-relief in cases of dental pain, 22% (N=45) declared they never opted for self-medication while analgesics were used by 74% (N=148). Interestingly, about one quarter of the subjects declared they took antibiotics for dental pain (Table 1). When it comes to the preferred analgesics, ibuprofen and paracetamol were most frequently chosen by the participants to the study (Table II).

Table II. Attitude toward self-medication for dental pain

Attitude toward self-medication for dental pain before going to the dental office	% (N)
<b>Type of medicine taken</b>	
<i>Analgesics</i>	74% (148)
<i>Antibiotics</i>	24% (48)
<i>None</i>	22% (45)
<b>Type of analgesic preferred</b>	
<i>Ibuprofen</i>	59.5% (119)
<i>Paracetamol</i>	24.5% (49)
<i>Ketoprofen</i>	16.5% (33)
<i>Aspirin</i>	6% (12)
<i>Metamizole</i>	1% (2)

## DISCUSSIONS

In the present study, one third of the participants declared they had experienced dental pain at least 1 time per year. This is in accordance with the data in the literature [16,17], although an accurate prevalence of the dental pain is improbable because of the inconsistency of the definition of dental pain used in the previous research and the difficulties in discrimination between different causes of dental pain [16,17].

The most accurate predictor for the dental pain is the dental attendance pattern [18]. Thus, the less frequent dental visits, the greater are the changes for dental pain. In our study, it was found that two thirds of the subjects choose to schedule an appointment to the dental office after they feel dental pain. When it comes to the postponed dental visits due to the costs of dental treatments, in our study it was observed that the reason was mentioned by 1 in 3 participants, while a previous study conducted on the UK population revealed a lower frequency, namely 1 in 5 adults [19].

Ibuprofen is the first choice for dental pain relief from the efficacy perspective while paracetamol is recommended when the ibuprofen is contraindicated [15]. Those were the most frequently used medicine by the participants in our survey. However, the analgesic medicine should not impede the dental attendance, symptomatic treatment with medication should be used only along with the dental operative procedure in order to offer the etiological treatment and thus to prevent recurrence of the pain [20].

Self-medication with antibiotics for dental pain is generally ineffective when the pain is caused by pulpitis since it has an inflammatory nature [21]. Then there is a dental infection that causes the dental pain, a surgical approach or endodontic treatment are recommended and not antibiotherapy as a monotherapy [22]. Yet, in our study one quarter of the participants declared they took antibiotics for the episodes of dental pain in the past, irrespective of the cause. Previous research found in the literature showed that up to 85% of antibiotics taken for dental conditions are not indicated [23].

## CONCLUSIONS

In the present study, participants' attitude toward the dental pain was observed to be of neglect. Although a large proportion of assessed adults schedule a dental appointment after they feel dental pain, in most of the cases, they postpone this decision and the most frequent reason was the costs of the dental treatment. Participants choose self-medication frequently and ibuprofen is the most commonly used medicine. However, an important proportion of the studied population take antibiotics for dental pain, irrespective of the cause of it.

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