

## Study of emotional and psychological factors that may interfere in the dental treatment

### Estudo dos fatores emocionais e psicológicos que podem interferir no tratamento odontológico

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#### Abstract

**Introduction** – Submission to dental treatment has been reported by patients as a condition giving rise to stress because they may experience some discomfort causing them to postpone visits to the dental office because of situations that include pain. Identifying these conditions is a challenge that dentists should include their care procedures in order to modify this pessimistic view where the main focus (oral health) can be achieved. This work results in the identification of factors that interfere with patient-dentist approximation for the dental treatment. **Material and Method** – We interviewed 54 patients. **Results** – The results were significant: 14.85% said they going to the dental office is stressful. 83.3% reported that the dentist managed to deal with fear and anxiety during the dental treatment, 22.0% had requested to stop a consultation because of not keeping the self control. The most common symptoms: palpitations, cold hands, panic, increased sweating. When questioned about what most frightened them: equipment used during the consultations is the main cause of fear. **Conclusion** – It was concluded that the patient-dentist relationship is a complex and extensive subject, however, it identifies situations that may be related to fear, so that when controlled it facilitates adherence and reduce the dropout to dental treatments, improving clinical and practical care and the patient approach to the dentist.

*Key words:* Dental anxiety; Conditioning (Psychology); Dentist-patient relations

#### Resumo

**Introdução** – Submeter a tratamento odontológico (TO) tem sido relatado, por pacientes, como condição geradora de estresse, pois acredita se experimentar algum desconforto levando-os a adiar idas aos consultórios odontológicos a situações limitrofes como a dor. Identificar tais condições é mais um desafio que os cirurgiões-dentistas (CD) devem incluir aos seus atendimentos, com objetivo de modificar esta visão pessimista onde o foco principal (saúde bucal) possa ser atingido. Este trabalho resulta na identificação dos fatores que interferem na aproximação paciente-CD para o TO. **Material e Método** – Foram entrevistados 54 pacientes. **Resultados** – Os resultados foram significativos: 14,85% afirmaram que ir ao consultório odontológico é estressante. 83,3% relataram que o CD conseguiu lidar com situações de medo e ansiedade durante o TO; 22,0% já solicitaram interromper a consulta por não conseguir manter o autocontrole. Os sintomas mais frequentes: palpitações, mãos frias, pânico, sudorese aumentada. Quando interrogados sobre o que mais os amedrontam: equipamentos utilizados durante os atendimentos são principais desencadeadores de medo. **Conclusão** – Conclui-se que a relação paciente-CD é um assunto complexo e extenso, contudo, identifica as situações que devem ser relacionadas ao medo, para que, ao contorná-las possam facilitar aderência e diminuir evasão aos TO, melhorando o atendimento clínico-prático bem como a aproximação dentista-paciente.

Palavras-chave: Ansiedade ao tratamento odontológico; Condicionamento (Psicologia); Relações dentista-paciente

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## Introduction

Studies on the fear and anxiety in the dental office are not new, being mentioned in literature since 1981, but more than a century the subject has been described, although often the results are not conclusive to allow its use widespread.

Anxiety may be characterized by subjective feelings of apprehension, tension and nervousness and is closely linked to fear, since it may represent a response to any threat.

It is known that many patients show fear and / or anxiety related to the dental treatment by several factors, often delaying the return to dental office, looking for the dentist only when he feels pain, which makes the treatment more stressful and unpleasant.

Currently there are several techniques to minimize the anxiety and fear of the patient, such as the use of Conscious Sedation and Analgesia by inhalation of nitrous oxide and oxygen, Acupuncture, use of alternative therapies such as Homeopathy, Bach florals of the use of anxiolytic drugs, techniques of hypnosis and relaxation.

Many patients do not report their fears at the beginning of the treatment which complicates the diagnosis by the dentist, this way it is very important to have a good professional-patient relationship so that both work together to reach a directed care, reducing the causative factors of stress, fear and anxiety during treatment.

## Literature review

One of the main points that seem to affect the behavior of most individuals looking for dental care is the belief that they will be subjected to some kind of discomfort during treatment<sup>9,13</sup>.

Fear and anxiety are major problems found by the dentist towards dental care. Anxiety is the difference in reaction to situations faced as threatening and it is a phenomenon that can be characterized by subjective feelings of tension, apprehension, nervousness and concern that are experienced by an individual at a particular moment<sup>2,4,15</sup>.

According to Klatchoian<sup>6</sup> (2002), the dental office itself may be a potentially anxiogenic place where tension and difficulty in relaxing by the patient can interfere in his physical and emotional balance requiring care by a professional who, ideally, knows how to deal with the disorders of anxiety and behavior resulting from the treatment to be done, however, there is great difficulty in assessing the anxiety in dentistry, since the fear and pre-concept are installed in the mind of the population since the childhood<sup>18</sup>.

Anxious patients avoid the dental treatment by the fear of pain or they return after a long period since the end of the last treatment regardless of their social or educational level arising then barriers to maintaining oral health. On the other hand there is the need for the dentist to deal with the anxiety of the patient, the use of different strategies to manage behavior, and the entire requirement for technical perfection and update of clinical knowledge which may make his routine work stressful<sup>3,11,13</sup>.

When the dentist shows failures in the acquisition of theoretical and practical knowledge on the professional-patient relationship and behavioral strategies, one should

take into account the cumulative influence of adverse and non-collaborative behavior of patients on the emotional state of the dentist that may lead him to professional exhaustion in which the incidence of hypertension and coronary alterations is around 25% more frequent in these professionals than in the general population<sup>1,13</sup>.

A study carried out by Possobon *et al.*<sup>13</sup> (2007), evaluated the anxiety of patients and dentists in relation to the expectation of some clinical and dental procedures, such as the completion of tooth extractions. The results showed higher scores of anxiety before the surgery, both for patients and for professionals, concluding that the dentist is also very anxious before the execution of certain procedures.

In order for the dentist to make a good clinical work there should be communication and prior guidance for the patient, because the majority of respondents fear postoperative complications, even more than the fear of having pain, generating tension and difficulty to relax before and during the dental session. This fact highlights the need for a good professional-patient relationship, where the explanation of the procedures and possible discomforts are reported clearly collaborating for the reduction of the level of preoperative anxiety of the patient. The professional must be aware of the importance of such data so that there can be a dentist-patient relationship of respect and confidence bringing comfort to the patient and credibility for the professional<sup>18</sup>.

The reduction of anxiety is essential for the treatment and the patient's motivation to return regularly. Modify negative concepts of past experiences is very important for a proposal of dental care for a patient who comes in search of a dental treatment or those who flee from treatment due to fear<sup>1,13</sup>.

The fear of the dental treatment usually begins in childhood or adolescence. The main factors are: previous painful experience, ignorance of the procedures, the office environment and the influence of negative ideas passed by other people and family. Go to the dentist is the second greatest fear in the general population, and that fear is the major cause of avoiding dental consultations. Thus it is clear that individuals who do not fear the dental treatment have a better oral health than those who fear, showing that there is a cyclical problem, or else, patients do not make prevention and thus the disease is established, leading to invasive procedures and risk of pain, thus causing the fear and flee of the patients<sup>1,16</sup>.

A study to assess fear and anxiety related to the dental treatment in 364 children from 7 to 13 years of age showed that girls are more anxious than boys<sup>16</sup>. Oliveira *et al.*<sup>10</sup>, (2007), found that women also are more anxious. Assessing the frequency of patients with anxiety or fear of dental treatment in a urgency unit with 252 patients. Women proved to be more anxious than men and that they seek care more quickly and in greater numbers<sup>4</sup>. A study of 60 elderly patients to measure their levels of anxiety to dental treatment showed that older women are also the most anxious. Anxiety in general may interfere in the dental treatment and when minimized it can cooperate for the success of the dental treatment<sup>11</sup>.

A survey conducted to assess the influence of pain and anxiety on the heart rate (HR) and blood pressure (BP) in

275 volunteers during endodontic emergencies showed that the majority was moderately anxious, and not the pain nor the anxiety were enough to induce increased blood pressure and heart rate<sup>10</sup>.

A study assessing anxiety in patients that were under dental treatment in the Integrated Clinic of the University of Fortaleza - Ceará, with 300 patients, through questionnaires involving anxiety and level of education, showed the prevalence of highly anxious individuals and the low level of schooling for a total of 18% of cases<sup>3</sup>.

Kanegane *et al.*<sup>4</sup> (2003) found that 28.2% of patients showed some degree of anxiety and that prior traumatic experiences were important to the development of anxiety regarding dental care. The research also showed that in 61.5% of patients attending the emergency service was due to pain.

Kanegane *et al.*<sup>5</sup> (2006), state that when the patient is exposed to an unknown situation, he is able to awaken the feeling of fear, being a primary response to this immediate stimulus that prepares the body to defend itself. In a study of anxiety, the same authors found that of 111 patients interviewed, 72 were female, and they were more anxious, and that most respondents reported going to the dentist only when necessary (57.6%) .

According to Moraes<sup>8</sup> (2003), it is very important now that the dentist knows the emotional profile of his patients because they are more demanding, better aware of their rights and they charge not only a good theoretical and practical training but also a good psycho-social training. The fear within the area of psychology is a major limiting factor in attitudes, because people who are afraid often avoid doing some activities. According to the same author, it is possible to say that there are patients with fear during the dental treatment, that this fear can be mild or severe, demonstrating the difficulty in different ways. Thus the author suggests that the dentist should act in a positive manner, interacting, showing tranquility, not only looking at the patient as a mouth, but as a whole, increasing comfort and safety of treatment that he will achieve, because watching the patient calm also increases the job satisfaction of the dentist. The same author notes some techniques such as relaxation, hypnosis and the use of Bach Florals to help in the treatment of anxiety and fear, however, he also notes that the use of anxiolytics fairly accepted in the clinic does not show major improvements in cases of phobic patients, this way it is important to strengthen the professional positive attitude, and reinforce his social image, increasing credibility and trust, thereby improving the quality of care.

## Material and Method

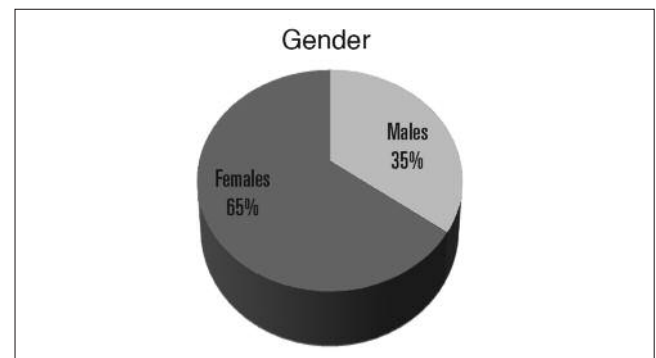
Clinical study in the Discipline of Integrated Clinic of the University Paulista (UNIP), consisting of 54 patients of both genders who were interviewed by questionnaire on situations that cause fear or anxiety in the dental treatment. The questionnaire was composed of questions such as: why the patient postpone the consultation to the dentist, reactions during treatment, equipment or situations that cause fear and stressful situations that could be improved.

This research was initiated after approval by the Research Ethics Committee of UNIP – SP, protocol n<sup>o</sup> 059/08

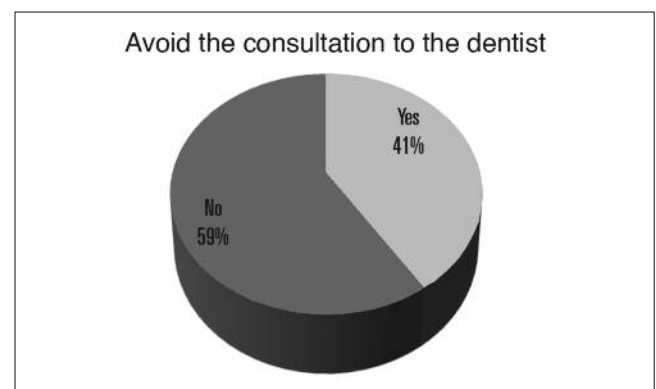
CEP/ICS/UNIP and then collection of the necessary documentation of the Free and Informed Consent signed by the patient, after explanation of all the details of the research, leaving the patient free to accept or leave it during the course of the same when convenient for him.

## Results

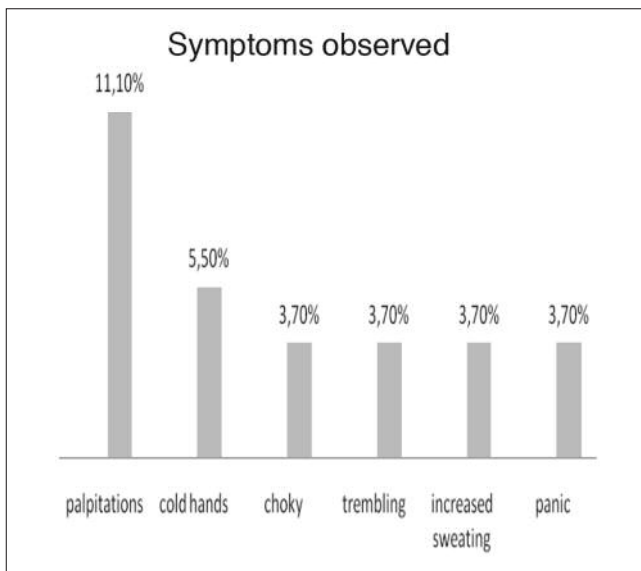
Fifty four patients were interviewed by questionnaire (65% females and 35% males) (Graph 1). The survey showed that 59.0% stated to postpone the visit to the dentist (Graph 2). Symptoms during dental treatment (Graph 3): choky (3.7%), trembling (3.7%), with increased sweating (3.7%), cold hands (5.5%), palpitations (11.1 %) panic (3.7%). About the factors that the most frighten (Graph 4): equipment (needle, motor) (46.2%), the waiting room (5.5%), diagnosis (1.8%), value of the dental treatment (11.1 %). About situations that cause stress (Graph 5): 14.85% said that going to the dental office is stressful; 83.3% reported that the dentist managed to deal with fear and anxiety during the treatment; 55.55% tried to maintain the appearance of calm in front of the dentist. About stressful situations that can be improved (Graph 6): professional-patient dialogue (39.9%), delay in care (12.4%), decreased pain (10.1%), the engine noise (12.4 %), needle (8.9%), environment (7.7%), not to show the tools (4.8%) and sanitation (3.8%). Furthermore 21.0% said there were situations when they asked the dentist to stop the session because they could not maintain the self control (Graph 7).



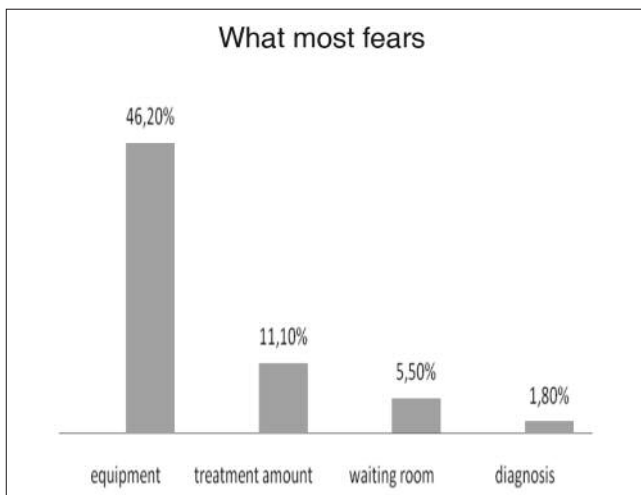
Graph 1. Distribution related to gender



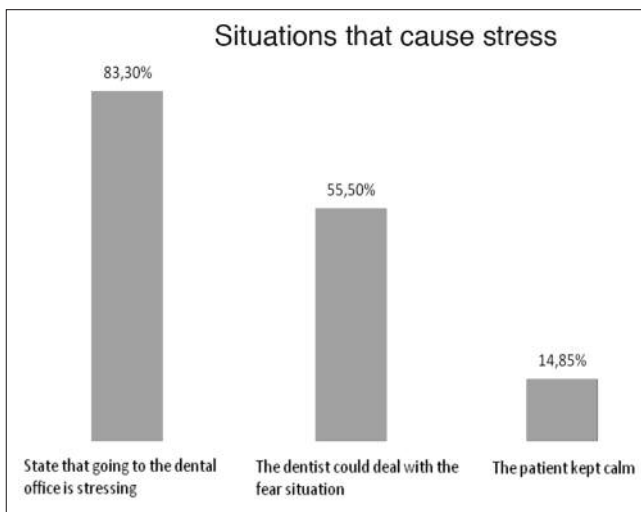
Graph 2. Patients that avoid the consultation



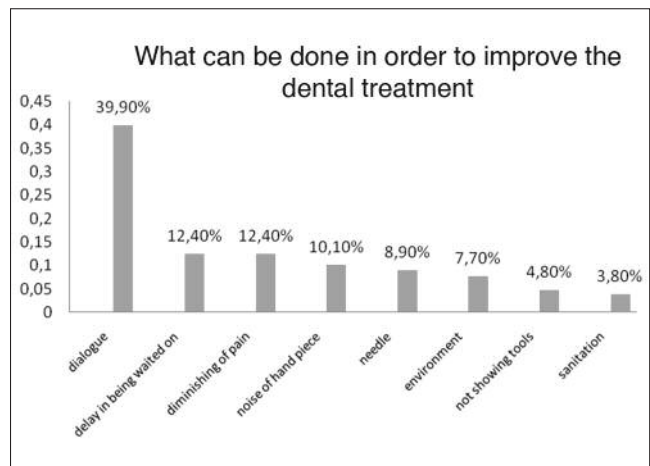
Graph 3. Symptoms during the dental treatment



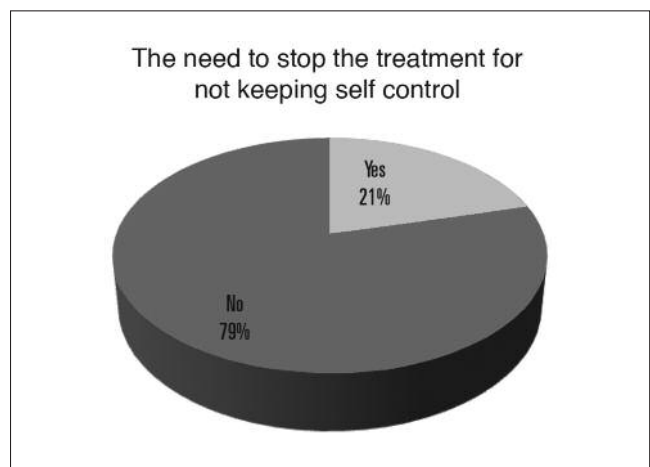
Graph 4. Factors that cause fear in the dental treatment



Graph 5. Situations that cause stress



Graph 6. What could be done to improve the dental treatment



Graph 7. Patients that need to stop the treatment for not maintaining the self control

Discussion

According to authors in general women have proved to be more anxious than men<sup>4,10-11,17</sup>.

For Nathan<sup>9</sup> (2001), Possobon *et al.*<sup>13</sup> (2007) what may interfere in the dental treatment are situations of discomfort that may occur during the procedures. This study showed that patients show symptoms such as cold hands, palpitations and fear facing certain equipments such as needles and the use of the motor hand piece so frequent and in a significant way.

This study observed a large percentage of people reporting to suffer stress in the dental office in agreement with the results obtained in the searches of Possobon *et al.*<sup>12</sup> (1998), Pouton *et al.*<sup>14</sup> (1998), Moraes *et al.*<sup>7</sup> (2004), where they state that the dental treatment generates stress and anxiety.

Studies show that situations of fear and anxiety during the dental treatment are major difficulties encountered by the dentist during the consultation. In our research, a large percentage of patients said that the dentist could handle these situations, however, most of the respondents try to

maintain the appearance of tranquility in the presence of the dentist.

According to Possobon *et al.*<sup>13</sup> (2007), the dentist needs many strategies for the management of behavior during the dental treatment, in addition to his quest for clinical knowledge and this may cause a stressful condition for him. In this work patients reported stressful situations that can be improved during dental consultations thus improving the conditions of anxiety and fear for them, thereby improving the care for both.

According Botta *et al.*<sup>1</sup> (2007), fear has started due to situations during the childhood or adolescence in the dental consultation. Thus fear is a predisposing factor that often prevents the patient from attending dental consultations, our research showed that patients said to postpone the visit to the dentist. This way we can observe the importance of proper care of the individual from the waiting room until the office in order to minimize the situations of anxiety and fear that some individuals previously experienced.

## Conclusion

The study showed the importance of the emotional state of the patient before the dental treatment and situations that cause discomfort and prevent the interaction with the dentist.

It is essential that the professional knows the patient as well as strategies for behavior management so that the treatment may be less stressful making work conditions more comfortable for the patient.

The professional-patient relationship is a complex and extensive subject. This research sought to identify factors and situations that must be considered during the dental treatment, facilitating the practical management of patients, calling the dentist's attention to these features that, perhaps because of the daily routine in the dental office go unnoticed or that may be important facts for the dentist, but they are common to happen and when well managed they generate greater comfort for patients and dentists, improving clinical and practical care as well as the interaction between the parts.

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