

Fear-Anxiety-Phobia of the Dentist: Development and Analysis of a Federating Instrument about the Different Material and Behavioral Techniques for Ideal Patient Management: Clinical Studies

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Dental anxiety ; behavior ; children.

Abstract

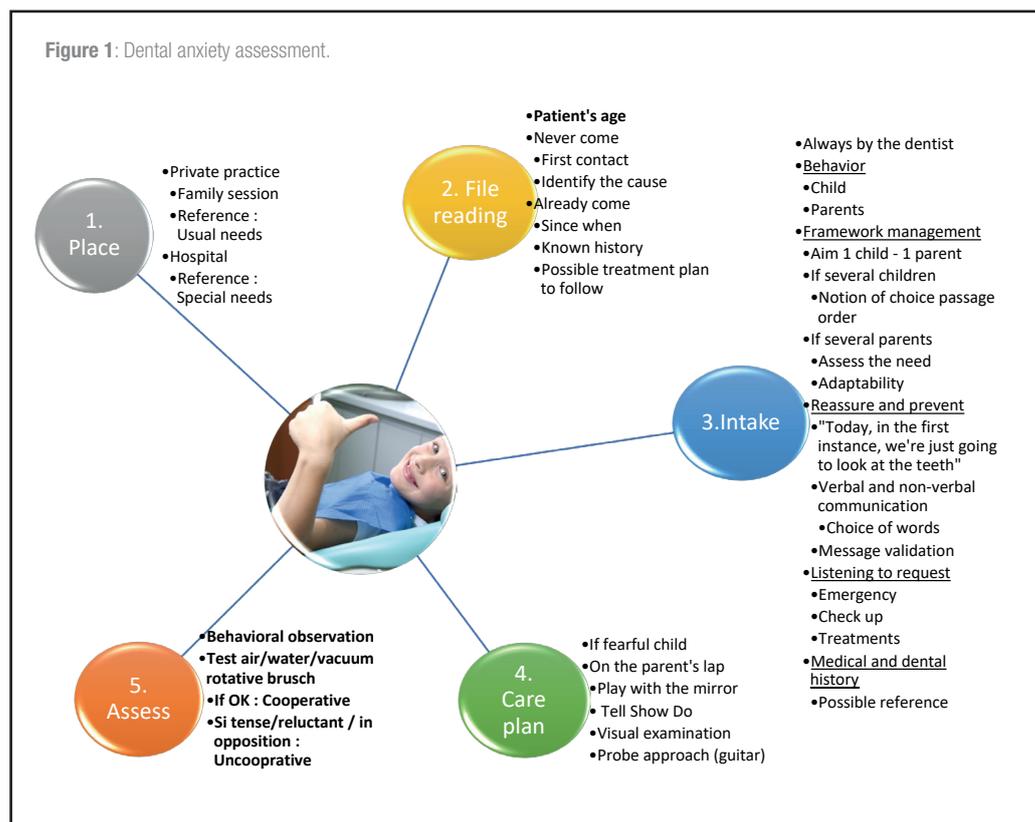
Dental anxiety remains an understudied problem, despite the fact that it is one of the major barriers to dental care for patients. The work done in this dissertation has brought to light several dimensions of this problem. "Do not frighten" is comparable to "Do no harm" in the Hippocratic oath. The specificity of the dentist, similar to the family doctor, is to maintain a long-term therapeutic relationship with his patients. It is up to us, dentists, to do everything we can to ensure a good therapeutic relationship. Other health care professionals should encourage patients to see a dentist early for preventive care before problems arise.

For many years, the concerns to improve dentistry have been of a technical nature: the management of dental pathologies and their complications. Then came the preservation of the tissues surrounding the tooth, periodontium conservation and biofilm management. In order to meet the technical requirements and to treat patients with the greatest possible comfort, the technologies were improved with more complex protocols. In just over a century, we have gone from the itinerant dentist to the modern dentist whose offices are equipped with a very high level of technology (1). In addition, pain management through the introduction of local anesthetics allows for very little or no pain (2). The psychological approach to care, on the other hand, has a much less visible place in teaching compared to the technological approach.

However, in spite of all these technological advances, a large part of the population still does not visit the dentist because of fear. In the epidemiological study commissioned by INAMI-RIZIV between 2012 and 2014, 18.1% of respondents stated that fear was one of the main reasons for avoiding dental care (3). This trend was described by Armfield in 2007 as a vicious circle: dental anxiety leads to the postponement of consultations, which leads to

the worsening of lesions. These larger lesions require more extensive treatment and are therefore more difficult to tolerate, leading to an increase in patient dental anxiety (4).

The prevalence of moderate to high dental anxiety ranges from 13.1% to 19.8% of the population and dental phobia from 3% to 7.1%. It affects



all age groups and all regions of the world (5).

When patients enter the dental office, one of the first subjects to be addressed is anxiety: "I don't like the dentist", "Nobody likes going to the dentist", "Doctor, I'm scared", ... This fear is so common that it has become a part of habit, a part of the norm. It is quite possible for anyone to express their fear of going to the dentist.

Dental anxiety is still an under-researched problem, although it is one of the main obstacles for patients to go to the dentist. Through the work done in this dissertation, several dimensions of this problem have been brought to light.

Having more information about the stimuli of dental anxiety according to age allows the dentist to adapt his care. In a survey, we found that for 3 to 6 year olds, the representation of the acts that frighten them is more important than the act itself (seeing the syringe, seeing blood, etc.). From the age of 7 to 12, the pure representation is replaced by a mixture of sensations, probably due to their own experiences (tooth extraction, tooth decay, etc.). In adolescence, the procedure becomes more important than the local anesthetic. One item that was largely missing, however, was the dental dam item, with a percentage of missing data of 75% (6).

This observation confirmed the importance of highlighting a clinical observation felt by practitioners using the dental dam: the dam relaxes the patient.

This system of dental operating field is a real asset in our practice, both technically and behaviorally. It helps both cooperative and non-cooperative patients. Significant results in patient relaxation have been achieved both awake and under conscious sedation. Unknown to patients and underutilized by practitioners, the dental dam is a very interesting tool that completes the therapeutic arsenal in the management of fear at the dentist (7).

Another very interesting tool is conscious sedation by inhalation of a mixture of nitrous oxide and oxygen (CS). Regardless of the system used, the observed success rate is very high (94.5%). This system deserves to be further developed because it represents a real improvement in patient care, regardless of the gas distribution system used (8).

However, this system is not suitable for all patients because it has limitations. It is a light sedation and the patients observed in the

Figure 2: Decision tree for managing dental anxiety in children under 4 years old.

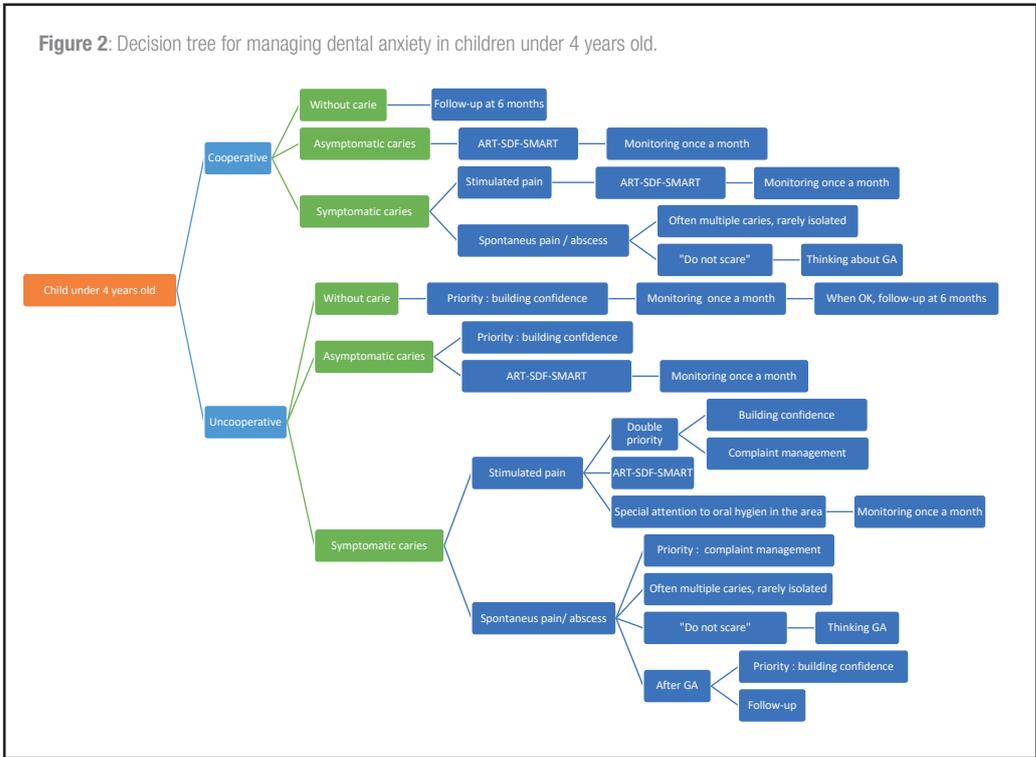
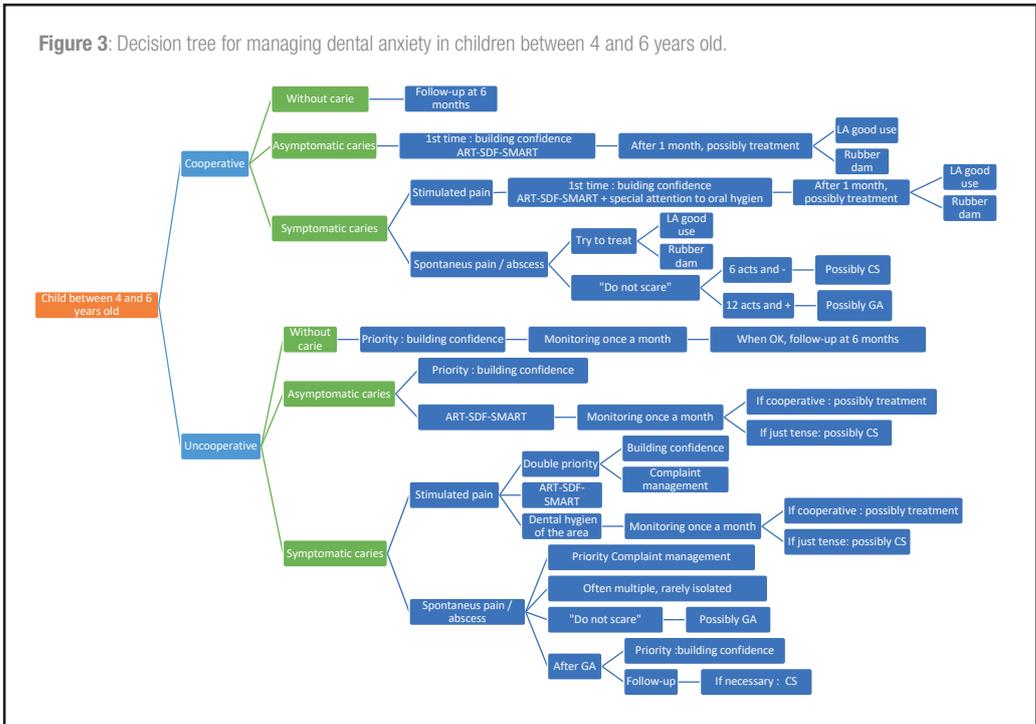


Figure 3: Decision tree for managing dental anxiety in children between 4 and 6 years old.



study corresponded to a population resulting from a preoperative consultation that allowed its indication. In order to better understand the profile of uncooperative patients, in rupture of care, a retrospective study was carried out to describe certain objective characteristics of these patients that could guide the practitioner towards one or the other therapeutic option. Young children presenting in CS are on average just over 4 years old and have an average caries index of 6.68, whereas young children presenting in general anesthesia (GA) are younger, less than 4 years old and have an average caries index of 11.97. Therefore, these patients often present with severe polycaries in early childhood (9).

As pediatric dentists, we have an important role to play in caring for these patients who are lost to care. The support we provide to these patients can have an impact on their dental future, as well as their overall health.

Pediatric dentistry is a teamwork that reaches its highest level when all participants in the therapeutic relationship are equally committed to the well-being of the patient. If the dentist and the patient are obvious members of this team, the parents are an essential and unavoidable part of the therapeutic triad.

We have many tools to evaluate patient behavior, but sometimes we lack a scale that allows us to measure exactly what we want. This was the case when we wanted to compare the behavior of the children with that of the accompanying parents. Analysis of the data from our study showed that a scale with important descriptors, such as the modified Venham scale and the corresponding scale we created for parents, is valid in the context of a scientific study by observers trained in its use, but less so by observers without sufficient training. In the context of daily practice, the use of a less detailed scale may provide better concordance (10).

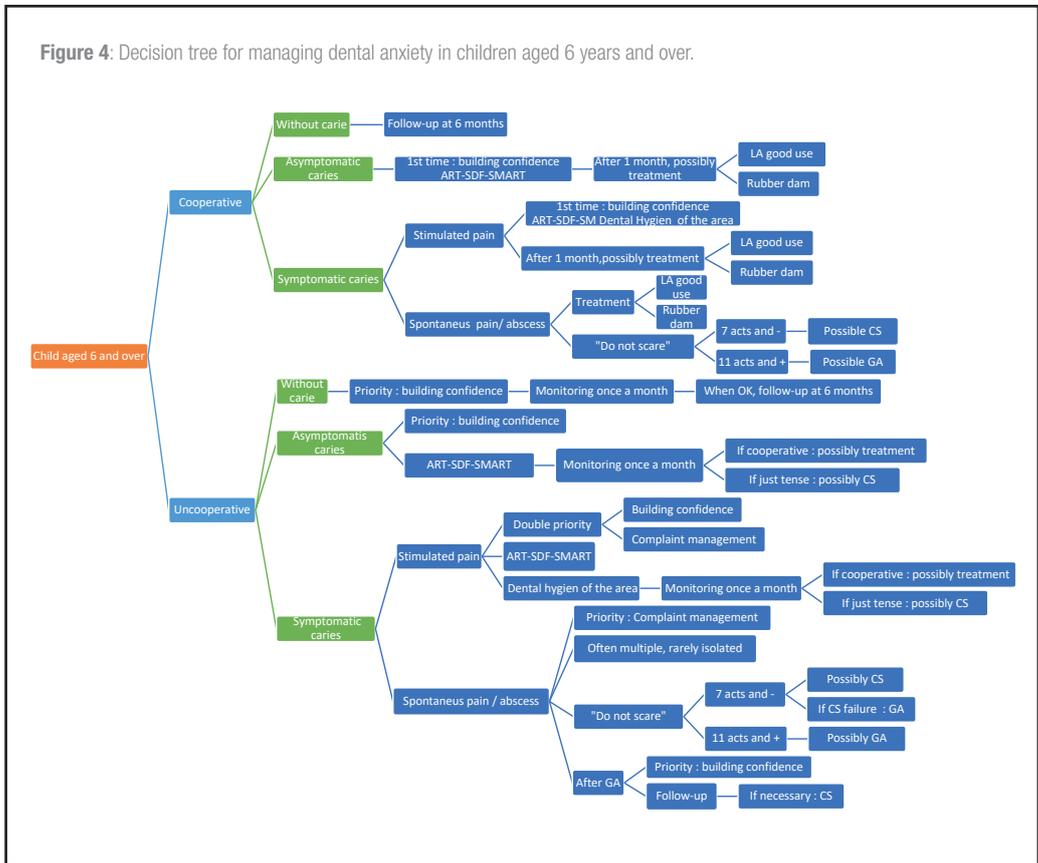
Behavior is a good indicator in the choice of care for the child, but it is not everything. In fact, the therapeutic relationship that has been established is crucial to the choice. This choice is also influenced by the level of dental involvement, particularly in the case of multiple infections due to dental abscesses, which can lead to serious complications with repercussions on the patient's general health.

In all studies conducted, age is an important objective criterion. Cooperation, surgery time, and level of autonomy are directly related to the age of the patient. The older the child, the better he/she can understand the provided care, communicate with the practitioner, tolerate longer sessions and participate in his/her care. His autonomy also increases.

The different elements described in this thesis form a real therapeutic arsenal that can be considered as a unifying fear management tool accessible to any dentist. This tool allows the assessment of dental anxiety in the form of a mind map (Figure 1) and provides support for therapeutic choices in the form of 3 decision trees, one for each age group (Figure 2-4).

"Do not scare" is similar to "Do no harm" from the Hippocratic Oath. The specificity of the dentist, much like the family doctor, is to maintain a long-term therapeutic relationship with his patients. It is up to us, as dentists, to do everything we can to ensure a good therapeutic relationship. It is equally important that early dental care is promoted not only by dentists but also by other health professionals such as pediatricians, obstetricians, nurses and midwives.

Figure 4: Decision tree for managing dental anxiety in children aged 6 years and over.



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