



# Managing Dental Anxiety



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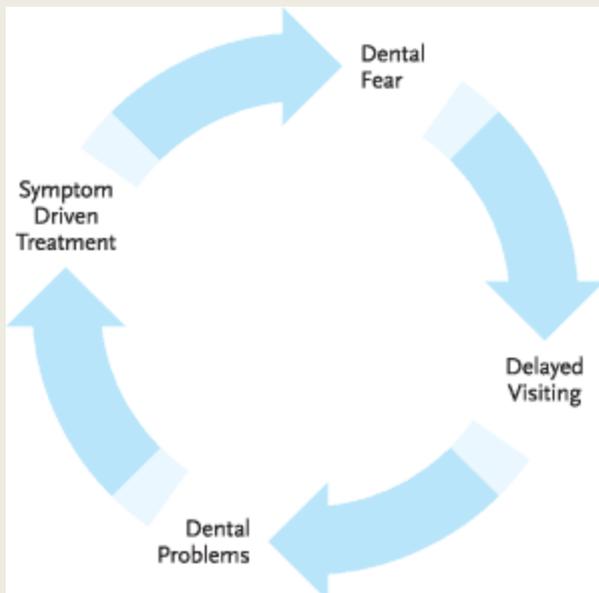
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# INTRODUCTION

Dental fear (also known as dental phobia, odontophobia, dentophobia, dentist phobia and dental anxiety) is the fear of dentistry and receiving dental care.

Fear and anxiety, however, toward the dentist and dental treatment are both significant characteristics that contribute to avoidance of dental care.

Delaying dental care due to anxiety prevents early diagnosis of dental decay and conditions that could be treated quickly, typically leading to more involved and costly treatment, starting what is described as the DENTAL ANXIETY CYCLE.



Patients that avoid dental visits because of fear, may worsen their dental problem requiring more intensive treatment that reinforces their fear. It is a frequently encountered problem in dental offices and faced with these patients can cause even considerable stress for the dentist.

People with dental fear need to be identified at the earliest opportunity to address their concerns. The dental professional should properly manage the patient in order to save time and create a trusted relationship, creating a calm dental experience. Managing dental anxiety with non-pharmacological techniques (behavioral and cognitive) is the best way to approach this common problem while

providing care to anxious or fearful children and adults

Cognitive strategies aim to alter and restructure the content of negative cognitions and enhance control over the negative thoughts.

This clinical tip offers a review to understand fear and anxiety in the dental clinic and discover different approaches to help dental practitioners in managing dental anxiety.



## The nature of dental anxiety and fear

Dental anxiety and fear come from different factors such as:

- prior traumatic experiences especially in childhood
- negative experiences from family members or friends
- individual personality characteristics that make the patient fearful such as painful or uncomfortable procedures, fear of gagging and/or choking, blood-injury fear, lack of trust or fear of betrayal. In addition, a sense of helplessness in the dental chair or a lack of control during the treatment, lack of understanding from the dentist may contribute to the anxiety.
- embarrassing for an existing oral health condition
- lack of understanding from the dentist

- anxiety provoked by sensory triggers (e.g. sounds of drilling, smell of antiseptics and cut dentine or the sight of the syringe and needle)
- unconscious fear that becomes phobic as an irrational state that leads to avoidance of the procedure(s).



## Managing dental fear patients, a general approach and first contact

According to the Internet, different surveys have been published on the percentage of people who will not be visiting the dentist due to fear.

This percentage varies from 25% to 40% depending on the population sample. Intercountry variation also applies.

The initial interaction of the dental professional with the patient can usually reveal the presence of anxiety where subjective and objective evaluations can greatly enhance the prognosis for successful management of the experience.

The dental professional must have a calm and continuous dialogue with the patient to identify severity of the fear of the patient and the dental situation giving rise to the anxiety. Asking a few open-ended questions followed by specific questions may provide more information on his/her anxiety.

## Anxiety questionnaires

The intensity and nature of dental anxiety varies from one person to another. A multiple/single-item self-reporting questionnaire can be useful for assessing anxious and phobic patients at the initial contact.

There are a variety of these reported assessments, and the Corah's Dental Anxiety Scale (CDAS) is probably the most well-known adult questionnaire designed for this scope; it is brief and has good psychometric properties.

The CDAS consists of four questions about different dental situations. Each question is scored from 1 (not anxious) to 5 (extremely anxious) so the score range is 4 to 20. A score of 15 or more indicates profound anxiety.

### The CDAS questionnaire

**Questionnaire**  
(Please circle the answer that matches your feelings about each question.)

- If you had to go to the dentist tomorrow, how would you feel about it?
  - I would look forward to it as a reasonably enjoyable experience.
  - I wouldn't care one way or the other.
  - I would be little uneasy about it.
  - I would be afraid that it would be unpleasant and painful.
  - I would be very frightened of what the dentist might do.
- When you are waiting in the dentist's office for your turn in the chair, how do you feel?
  - Relaxed.
  - A little uneasy.
  - Tense.
  - Anxious.
  - So anxious that I sometimes break out in a sweat or almost feel physically sick.
- When you are in the dentist's chair waiting while he gets his drill ready to begin working on your teeth, how do you feel?
  - Relaxed.
  - A little uneasy.
  - Tense.
  - Anxious.
  - So anxious that I sometimes break out in a sweat or almost feel physically sick.
- You are in the dentist's chair to have your teeth cleaned. While you are waiting and the dentist is getting out the instruments which he will use to scrape your teeth around the gums, how do you feel?
  - Relaxed.
  - A little uneasy.
  - Tense.
  - Anxious.
  - So anxious that I sometimes break out in a sweat or almost feel physically sick.

MDAS e DFS are two others common scales.

The Modified Dental Anxiety Scale (MDAS), is a brief well-validated 5-item questionnaire with 5-point responses to each question, ranging from "not anxious" to "extremely anxious". The range of a possible score is 5-25. The higher the score, the higher dental fear,

and a cutoff point for high dental fear has been suggested at a score of 19.

*The MDAS questionnaire*

**Modified Dental Anxiety Scale**

CAN YOU TELL US HOW ANXIOUS YOU GET, IF AT ALL,  
WITH YOUR DENTAL VISIT?  
PLEASE INDICATE BY INSERTING 'X' IN THE APPROPRIATE BOX

1. If you went to your Dentist for TREATMENT TOMORROW, how would you feel?  
 Not Anxious  Slightly Anxious  Fairly Anxious  Very Anxious  Extremely Anxious

1. If you were sitting in the WAITING ROOM (waiting for treatment), how would you feel?  
 Not Anxious  Slightly Anxious  Fairly Anxious  Very Anxious  Extremely Anxious

1. If you were about to have a TOOTH DRILLED, how would you feel?  
 Not Anxious  Slightly Anxious  Fairly Anxious  Very Anxious  Extremely Anxious

1. If you were about to have your TEETH SCALED AND POLISHED, how would you feel?  
 Not Anxious  Slightly Anxious  Fairly Anxious  Very Anxious  Extremely Anxious

1. If you were about to have a LOCAL ANAESTHETIC INJECTION in your gum, above an upper back tooth, how would you feel?  
 Not Anxious  Slightly Anxious  Fairly Anxious  Very Anxious  Extremely Anxious

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**Instructions for scoring** (remove this section below before copying for use with patients)

*The Modified Dental Anxiety Scale.* Each item scored as follows:

Not anxious = 1  
 Slightly anxious = 2  
 Fairly anxious = 3  
 Very anxious = 4  
 Extremely anxious = 5

Total score is a sum of all five items, range 5 to 25: Cut off is 19 or above which indicates a highly dentally anxious patient, possibly dentally phobic

The Children's Fear Survey Schedule consists of 15 questions scored from 1 (not afraid) to 5 (very afraid), and a score of 45 or more represents high level of anxiety. An alternative questionnaire for children is the Visual Analogue Scale.

*The CFS questionnaire*

|  |           |
|--|-----------|
| 1. Dentists                                      | 1 2 3 4 5 |
| 2. Doctors                                       | 1 2 3 4 5 |
| 3. Injections                                    | 1 2 3 4 5 |
| 4. Having somebody examine the mouth             | 1 2 3 4 5 |
| 5. Having to open your mouth                     | 1 2 3 4 5 |
| 6. Having a stranger touch you                   | 1 2 3 4 5 |
| 7. Having somebody look at you                   | 1 2 3 4 5 |
| 8. The dentist drilling                          | 1 2 3 4 5 |
| 9. The sight of the dentist drilling             | 1 2 3 4 5 |
| 10. The noise of the dentist drilling            | 1 2 3 4 5 |
| 11. Having someone put instruments in your mouth | 1 2 3 4 5 |
| 12. Choking                                      | 1 2 3 4 5 |
| 13. Having to go to the hospital                 | 1 2 3 4 5 |
| 14. People in white uniforms                     | 1 2 3 4 5 |
| 15. Having the nurse clean your teeth            | 1 2 3 4 5 |
| The anxiety is marked in 5 point anxiety scale:  |           |
| 1. Not afraid at all                             |           |
| 2. Very little                                   |           |
| 3. Moderate fear                                 |           |
| 4. Pretty much afraid                            |           |
| 5. Very much afraid                              |           |

The Dental Fear Survey (DFS) consists of 20 items concerning avoidance behavior, physiological fear reaction, and different fear objects concerning dental appointments and treatment, giving summed scores from 20 to 100. A cutoff point for high dental fear has been suggested at more than 60. The scale has 3 dimensions: avoidance of dental treatment, somatic symptoms of anxiety, and anxiety caused by dental stimuli.

*The DFS questionnaire*

Kleinknecht Dental Fear Survey (DFS)

Name \_\_\_\_\_  
 Date \_\_\_\_\_

The items in this questionnaire refer to various situations, feelings, and reactions related to dental work. Please rate your feeling or reaction on these items by *circling the number* (1, 2, 3, 4, or 5) of the category which most closely corresponds to your reaction.

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1. Has fear of dental work ever caused you to put off making an appointment?  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

2. Has fear of dental work ever caused you to cancel or not appear for an appointment?  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

When having dental work done:

3. My muscles become tense  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

4. My breathing rate increases  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

5. I perspire  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

6. I feel nauseated and sick to my stomach  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

7. My heart beats faster  
 1 never 2 once or twice 3 a few times 4 often 5 nearly every time

Following, is a list of things and situations that many people mention as being somewhat anxiety or fear producing. Please rate how much fear, anxiety, or unpleasantness each of them causes you. Circle the numbers 1-5, from the following scale, "1" being very relaxed and "5" being so anxious you feel ill. (If it helps, try to imagine yourself in each of these situations and describe what your common reaction is.)

8. Making an appointment for dentistry 1 2 3 4 5  
 9. Approaching the dentist's office 1 2 3 4 5  
 10. Sitting in the waiting room 1 2 3 4 5  
 11. Being seated in the dental chair 1 2 3 4 5  
 12. The smell of the dentist's office 1 2 3 4 5  
 13. Seeing the dentist walk in 1 2 3 4 5  
 14. Seeing the anesthetic needle 1 2 3 4 5  
 15. Feeling the needle injected 1 2 3 4 5  
 16. Seeing the drill 1 2 3 4 5  
 17. Hearing the drill 1 2 3 4 5  
 18. Feeling the vibrations of the drill 1 2 3 4 5  
 19. Having your teeth cleaned 1 2 3 4 5  
 20. All things considered, how fearful are you of having dental work done? 1 2 3 4 5

Information on the use of these questionnaires in the routine dental practice is scarce and a small percentage of dentists have used them. Consideration of the use of this tool is beneficial and recommended because discloses the degree of the anxiety helping to reduce it.

## The dental office environment

Dental office ambience and a welcoming staff play a significant role in initiating dental fear and anxiety.

The office atmosphere can be made calm and unthreatening by the playing of soft music and lights.

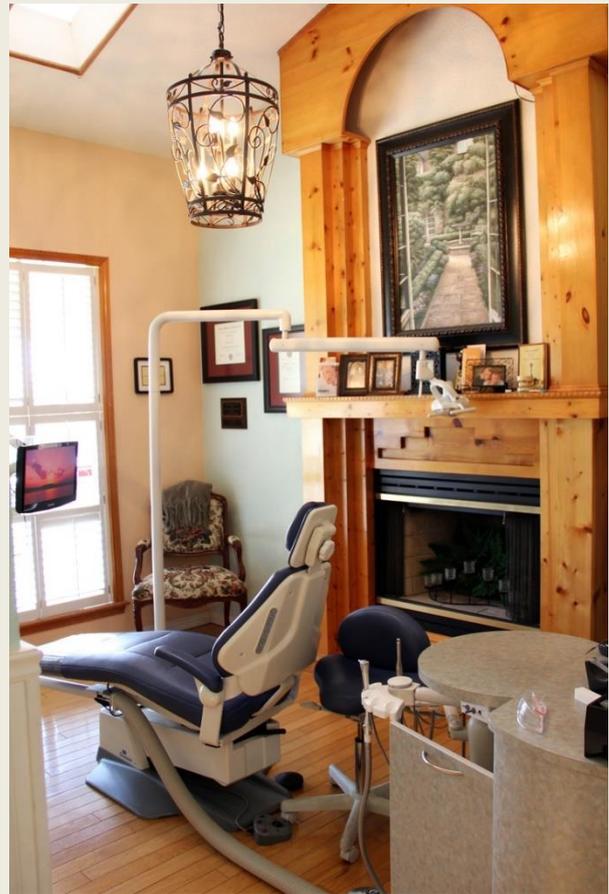
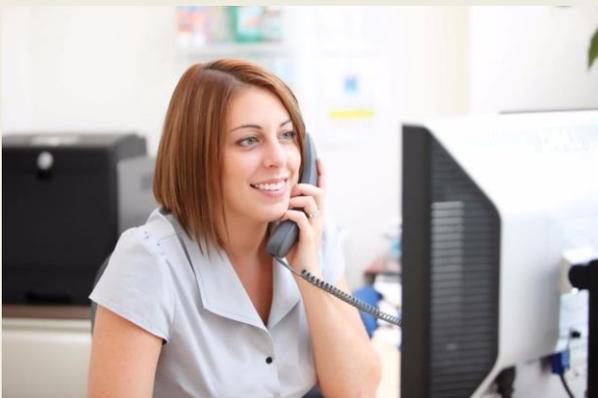
The paint may be in soothing colors, the walls can be adorned with posters and pictures.

Comfortable chairs, moderate room temperature and pleasant ambient odors can help reduce anxiety in susceptible patients.



Reducing procedural wait times is important because 10 minutes can seem a never-ending period for the nervous patients.

The receptionist, dental assistants and hygienists should exhibit positive and caring behavior to make these patients comfortable.



## Communication and trust building

A good relationship between patient and dentist is crucial for the management of anxiety.

The patient should know what to expect during and after the treatment.

Open-ended questions are always good along with inquiries about any discomfort.

Nonverbal communication such as facing the patient and making eye contact are an essential skill.

Giving the patient some control creating a signal would let the dentist know when the patient requires a break.



## Psychological approaches to managing dental anxiety

### Distraction

A focused attention on specific alternative visual or auditory stimuli might be beneficial for patients with mild to moderate dental anxiety.

Distraction is a useful technique of diverting the patient's attention from what may be perceived as an unpleasant procedure.

Technological options are available for both visual and auditory distraction such as background music, television sets, video glasses for watching movies.

Suitable music has been shown to influence human brain waves, leading to deep relaxation and alleviating pain and anxiety.

Music distraction is a noninvasive technique in which the patient listens to pleasant music during a stressful procedure.



### Relaxation breathing

Deep breathing techniques which require the patient to breathe slowly and deeply, taking in as much oxygen as possible help to relax the patient. The patient may feel calmer and by focusing on the breathing technique become distracted from worrying about the dental treatment.

There are several variations on relaxation breathing.

Slow, steady breathing for 2-4 minutes is regarded as effective in reducing a patient's heart rate and making anxious patients noticeable more comfortable.

Breathing techniques can be taught quite easily at the dental office and can be practiced at home by the patient prior to the initial visit.

**RELAXATION TECHNIQUES**  
**Deep Breathing**  
Give yourself 5-10 minutes to do this exercise.

1. Switch on some soft and relaxing music.
2. Dim the lights, if you can.
3. Sit down or lie down in a comfortable position.
4. Close your eyes and place one hand right above your waist.
5. Take a deep breath slowly though your stomach slowly rise up.
6. Slowly breathe out, gently through your nose.
7. Focus on your breathing and feel the tension leave your body.
8. Repeat step 4 & 5 several times until you feel relaxed.
9. When done, slowly open your eyes.

### Progressive relaxation

This is a way of relaxing each individual muscle in the body, starting from the toes. The patient should tense all their muscles until the head is reached, then release the tension in all muscles to go completely loose and relaxed.

The procedure used in progressive muscle relaxation is relatively simple but requires an investment of time to teach the patient and for the patient to practice at home. Usually this involves twice per day 1-2 weeks before the visit to master the technique that consists of

holding muscles for 5 to 10 seconds, and then relaxing them for about 10 seconds, with attention focused on the tension and the relaxation.



## Guided imagery

Guided imagery involves patients mentally taking themselves to a pleasant and relaxing place.

In this relaxation method, the patient imagines something of a pleasurable and calming experience. They can pretend to be in a secure environment rather than the dentist's surgery, trying to produce as vivid an image as possible and focus entirely on this feeling to be more relaxed.

The dental practitioner can help the patient by using a calm and relaxed manner, guiding the patient through the scene and attempting to engage as many of the patient's senses as possible (sight, sound, touch, smell).



## Positive reinforcement

Reinforcers include positive voice modulation, facial expression, verbal praise, and appropriate physical demonstrations of affection by all members of the dental team. These should be individualized, frequently provided, and varied over time.

## Planning and scheduling

It is recommended that treatment planning for highly anxious people be both flexible and introduced to the patient in phases.

Phasing treatment allows time for the patient to learn and practice some of the behavioral strategies such as those suggested in this paper.

The treatment sequence should commence with the least fear evoking and painful techniques. Initial phase should be restricted to procedures designed to increase the patient's ability to tolerate treatment and desensitize the patient to the dental environment, helping to build trust with the dental professional. The second or third treatment phase should be reserved for more extensive or complex procedures.



It also is recommended that anxious patients schedule appointments for a time when they aren't rushed or stressed. Early in the morning is a good time because it circumvents a patient stressing about the visit all day and avoids the likelihood that there will be a delay in being seen when the patient arrives at the clinic.

Patients could be encouraged to bring a relative or a close friend along to the first appointment to act as an advocate and for social support.

## Conclusion

Dental anxiety and fear have adverse impacts on a person's quality of life.

The general technique to keep patients calm before and during treatment includes:

1. Creating a relaxing and calm environment.
2. Improving patient communication.
3. Give to patients a modicum of control.

Patients with low or moderate anxiety can be managed by dental practitioners with good communication skills, empathy, cautious treatment and basic non-pharmacological approaches such as those presented in this paper.

The choice of anxiety management approaches should be based on patient understanding, history and concerns.

Of course, what works for one patient might not for another.

Dental practitioners can have a great satisfaction in managing patient's dental anxiety and their oral health.

All successful treatment will rest on dentist-patient cooperation and thus a relaxed patient will obviously result in a less stressful atmosphere for a dental team and better treatment outcomes.



## References

This paper was mainly edited based on the following works review:

- Management of fear and anxiety in the dental clinic – JM Armfield, LJ Heaton - ADA 2013
- Strategies to manage patients with dental anxiety and dental phobia – DP Appukuttan – Clinical, Cosmetic and Investigational Dentistry 2016