

# Rapid Relaxation — Practical Management of Preoperative Anxiety

John G. Lovas, BSc, DDS, MSc, FRCD(C); David A. Lovas, BSc, MD

## Auteur-ressource

Dr Lovas

Courriel : [jlovas@dal.ca](mailto:jlovas@dal.ca)



## SOMMAIRE

La relaxation rapide (RR) consiste en une série de brèves suggestions qui sont faites durant l'application de l'anesthésique topique, pour réduire l'anxiété durant l'anesthésie locale et le traitement dentaire qui suivra. La RR est recommandée pour le traitement de l'anxiété dentaire légère, présente chez presque tous les patients. La RR combine des éléments de l'hypnose, de la méditation et de comportement approprié envers les patients. Cette technique rapide et non invasive amène le patient à prendre le contrôle, en lui offrant une solution de rechange immédiate et agréable à la dramatisation. Selon les auteurs, la qualité de l'expérience dentaire s'en trouve sensiblement améliorée.

Pour les citations, la version définitive de cet article est la version électronique : [www.cda-adc.ca/jcda/vol-73/issue-5/437.html](http://www.cda-adc.ca/jcda/vol-73/issue-5/437.html)

Dental anxiety or phobia is a common disorder that is challenging for both patients and practitioners to cope with; 11% to 22% of patients have extreme dental anxiety.<sup>1</sup> Dental anxiety has a negative impact on dental health.<sup>2</sup> People with severe dental phobia tend to avoid dental encounters until advanced dental disease necessitates emergency treatment, usually under general anesthetic. Those with moderate dental anxiety can usually be managed with sedative pharmacologic agents, administered intravenously or orally or by inhalation.<sup>3</sup> Although considerable evidence supports the use of behavioural interventions for lessening patient anxiety<sup>4</sup> and possibly mitigating practitioners' stress, the vast majority of patients with mild dental anxiety are treated without any formal attempt to manage their fear and anxiety.

Data suggest that many dentists have difficulty both identifying dental anxiety<sup>5</sup> and treating it effectively.<sup>6</sup> Stress before and during treatment elicits the stereotypical stress response, the fight-or-flight response. Characterized by increased sympathetic and central nervous system

arousal, this response is most clearly manifested in an increased heart rate, diaphoresis and increased skeletal muscle activity.<sup>7</sup>

How can we help the majority of our dental patients better manage their immediate preoperative mild-to-moderate anxiety? Effective communication, persuasive ability and behaviour management are recognized as essential to ideal patient management,<sup>8</sup> yet these topics are rarely dealt with in any depth in dental or medical schools, which overwhelmingly emphasize pharmacological solutions.<sup>9</sup>

Do noninvasive relaxation techniques have proven benefits? Results of recent studies<sup>10,11</sup> in other disciplines examining the effect of relaxation techniques on postoperative pain and narcotic use have shown mixed results. However, consistently positive outcomes have been demonstrated in the domains that are particularly pertinent to the preoperative dental patient, including anxiety and patient satisfaction.<sup>10,11</sup>

Over the years, the senior author (J.L.) has developed a practical preoperative anxiety-management method, called rapid relaxation (RR).

This technique involves condensing the essential elements of hypnosis and meditation into a very brief set of instructions. In this paper we describe what this technique entails, who will benefit from it, and how to use it to help reduce dental anxiety.

### Patient Selection, Indications and Contraindications

A dental anxiety questionnaire can help the dentist assess patient anxiety levels. Although formal dental-fear assessments are rarely used in clinical practice, recently, a 20-item questionnaire called the Dental Fear Survey has been shown to accurately predict patient anxiety during treatment and is recommended for routine clinical application.<sup>1</sup>

The RR technique is ideally suited to the majority of patients who typically undergo dental treatment without premedication (anxiolytics, sedatives) or formal relaxation methods, yet suffer mild fear and anxiety before and during treatment. Evidence of preoperative stress ranges from patients stating that they are scared to exhibiting pallor, clammy hands, rapid shallow respiration, rapid pulse and muscular tension (**Fig. 1**). Even those who appear outwardly calm immediately before treatment should be asked if they are a little anxious. Often the response is affirmative. If the patient appears calm and claims to be relaxed, RR is likely unnecessary.

Patients need to be linguistically, intellectually and emotionally able to understand and follow instructions. A small proportion of more frightened patients seem to ignore the RR instructions. Some seem too frightened to be able to focus on the instructions, while others opt to use their own coping strategies.

### Chairside Manner

Patients are primarily aware of clinicians' chairside manner — their calmness, gentleness and attentiveness — rather than their technical skill. Borrowing from hypnosis, clinicians should try to make sure that their tone of voice and body language are intentionally and consistently soothing, monotonous and congruent with achieving their goal of relaxing and reassuring the patient. Great care should be taken to choose words that will provoke the least anxiety (e.g., "a bit of discomfort" instead of "pain"). Offering a brief summary of what the actual dental treatment will entail can also help relax the patient.

### The Rapid Relaxation Method

Ideally, RR instructions are given during the 2 or 3 minutes it takes to ensure profound topical anesthesia. When the patient is recumbent in the dental chair, generally with a dental assistant, and sometimes with one of the patient's relatives sitting nearby, we recommend following these 6 steps to help the patient overcome dental anxiety.

1. The dentist should show the patient the reassuringly soft cotton-tipped applicator with topical anesthetic and say



**Figure 1:** Tight gripping of the armrest is a common manifestation of muscular tension and fear.

“This will first comfortably numb the surface,” and then apply and hold the topical anesthetic in place.

2. Assessing the patient's overall body language is important. If the hands are clasped together, often pressing down on the solar plexus area, or firmly gripping the handrest, the dentist should say in a calm, slow, reassuring voice, “You might find it more comfortable if you let your arms rest loosely on the armrest.” Selective, gentle humour, such as “Please be gentle with our equipment,” when used in moderation, is sometimes appropriate and may lighten the mood. If the patient's legs are crossed at the ankles (some patients actively press the upper ankle down firmly on the one below), saying something like “You'll likely be more comfortable if you uncross your legs” may help. If the patient's eyes are open, the dentist could say, “You might find it more comfortable if you close your eyes — whatever's more comfortable for you.”

Suggestions are less likely to evoke resistance than commands. Using the word “might” helps maintain an encouraging, rather than authoritarian tone. In our experience, no one has ever refused these instructions, nor complained after they were given.

The assistant and dentist should periodically recheck the patient's body language. When they observe raised shoulders, a frown or white knuckles, they should gently remind the patient to relax the specific area, and if appropriate, gently touch the area.

3. Describing a simple, brief technique for relaxing can be key. The script might unfold this way: “If you like, we'll show you how you can feel more relaxed. Scan your whole body, from head to toes, and look for any areas of tightness and tension in your muscles. As you know, this ‘guarding’ doesn't really help. Tight muscles only make you tired and tense. You can just let your muscles relax. Let them go — just like when you're really tired and you finally lie down in bed and feel your whole body sink into the mattress — allow



**Figure 2:** A relaxed hand is an indicator of muscular relaxation and calmness.

your body to sink into the chair — completely relaxed, soft, floppy, like a baby or a puppy (**Fig. 2**.)”

If the patient still seems anxious, having him or her concentrate on the breathing will help deepen the relaxation. Saying something like this may help: “Now that your body is nice and relaxed, you might notice that your thoughts are buzzing around like a mosquito, that you’re worrying about the future — ‘what if this, what if that.’ You know that doesn’t help either. It just makes you tired and anxious. A much better thing to do with your attention is to let it rest.

“A good place to let your attention rest is on the gentle feel of your breath at the bottom of your lungs. Allow your attention to rest on the subtle feel of your breath in your belt area. Each part of the breath, beginning, middle and end, feels subtly different, and every breath is slightly different. Let your attention rest on this subtle feeling.”

If the patient’s breathing is not reasonably slow and adequately abdominal, suggesting that he or she try not to control the breathing may help: “There’s no need to try to control the breathing in any way. Just simply observe the subtle feel of the breath in your belt area. Breathing deep down to the base of your lungs is very efficient, so you can breathe much more slowly.

“You’ll notice that your attention keeps drifting back to worrying thoughts. That’s normal. Gently, patiently, keep bringing your attention back to the subtle feel of your breath in your belt area. Allow it to rest there peacefully.”

4. Shortly before giving actual local anesthetic injections, the dentist may find it useful to prepare the patient by describing how he or she may react during the injection. For example, the dentist might say, “Normally when you feel a bit of discomfort, like the slight pinch from the injection, the tendency is to tighten up and hold the breath. As you know, that doesn’t really help. It actually makes things worse. When your body stays relaxed and your breathing is smooth, you feel much less discomfort. So, as soon as you feel the slight pinch, let that be a signal for you to

intentionally relax, and breathe through the discomfort.” Continuing to encourage the patient during the injection by saying, “That’s right, nice and relaxed, breathing through, very good” can also be helpful.

5. During treatment, the dentist should continue to reassure the patient about what may occur, by saying, for example, “Should you notice a bit of momentary discomfort, you immediately have a choice to either focus your attention on the discomfort or return all of your attention to breathing and relaxation, gently breathing through the momentary discomfort. As you already know, focusing on discomfort tends to magnify it out of proportion. Like most patients, you will likely choose to remain focused on breathing and relaxation, allowing the discomfort to quickly fade away.” Patients need to remember that they are in control of the situation and that they have the ability to return their full attention to these techniques, thus minimizing any discomfort. If the patient suddenly stiffens and holds the breath during a momentary discomfort, interjecting a gentle reminder to “breathe through and relax” can help him or her refocus attention on relaxing.

Profound local anesthesia is, of course, a basic prerequisite. Nonetheless, anxious patients have a marked tendency to mislabel touch, vibration, smell, taste and sound as pain, and believe that their anesthesia is inadequate.

6. After the treatment is over, regardless of how well patients actually did, they should be congratulated on doing well. Encouraging them to practise these relaxation techniques will better enable them to relax in other stressful conditions. With practice, the mind is able to remain in a state of alert relaxation for longer periods of time, muscular tension is greatly reduced, breathing remains deep and relaxed, and a greater sense of calm prevails.

## Discussion

Attention modification by focusing on the breath is a key element of sitting meditation as well as RR. As distracting thoughts or sensations arise, these are gently let go by repeatedly returning awareness to the primary object of attention, the breath. As the mind focuses on this object, tranquility ensues.<sup>12</sup> Attention to the breath in the base of the lungs helps stabilize abdominal breathing and elicits relaxation.<sup>13</sup> Theoretically, abdominal breathing induces relaxation at least partially because of direct stimulation of the phrenic plexus of the parasympathetic nervous system.

Focusing detailed attention specifically on the physical sensation of the breath anchors patients in their bodies and in the present moment, whereas anxiety takes them out of the present and into their fear of future events. Since complete or detailed attention can be on only one object at a time, anxiety-provoking thinking about the quality of breathing (e.g., its excessive rate, ineffectiveness) is displaced. Using RR, we attempt to guide patients to experience “the visceral embodiedness of every moment.”<sup>14</sup>

The primary goal of RR is to keep the patient's attention anchored in the present, and to prevent catastrophization while being injected and, for a short time thereafter, while being treated. Anxious patients are in a catastrophization trance, triggered by exposure to the dental environment. The goal of both meditation and RR is to wake these patients from this trance so that they are able to respond appropriately to whatever is happening in the present, rather than inappropriately, based on past experience of traumatic events. RR, like meditation, trains the patient to tolerate the present experience and "not to let affect come tumbling in."<sup>15</sup> Both meditation and RR recognize how attention repeatedly drifts away from the focus of attention (e.g., the feel of the breath). The skill learned in both is that of persistently and patiently bringing attention back to the focus of attention. Attending to the ever-changing breath during RR literally links attention to each successive present moment, displacing anxiety and making dental treatment manageable, and at times, surprisingly pleasant. ♦

9. Bub B. Communication skills that heal. A practical approach to a new professionalism in medicine. Oxon UK: Radcliffe Publishing Ltd.; 2006. p. xvi–xxi.
10. Gavin M, Litt M, Khan A, Onyike H, Kozol R. A prospective, randomized trial of cognitive intervention for postoperative pain. *Am Surg* 2006; 72(5):414–8.
11. Haase O, Schwenk W, Hermann C, Muller JM. Guided imagery and relaxation in conventional colorectal resections: a randomized, controlled, partially blinded trial. *Dis Colon Rectum* 2005; 48(10):1955–63.
12. Olendzki A. Glossary of terms in Buddhist psychology. In: Germer CK, Siegel RD, Fulton PR, editors *Mindfulness in psychotherapy*. New York: The Guilford Press; 2005. p. 289–95.
13. Benson H. *The relaxation response*. Boston: GK Hall & Co; 1976.
14. Olendzki A. *Meditation in psychotherapy*. Continuing medical education course, Harvard Medical School, Boston, June 9–10, 2006.
15. Yassen J. *Meditation in psychotherapy*. Continuing medical education course, Harvard Medical School, Boston, June 9–10, 2006.

## THE AUTHORS



**Dr. J.G. Lovas** is an associate professor in the department of oral and maxillofacial sciences, faculty of dentistry, Dalhousie University, Halifax, Nova Scotia.



**Dr. D.A. Lovas** is a psychiatry resident at Cambridge Health Alliance, and clinical fellow, Harvard Medical School, Boston, Massachusetts.

**Correspondence to:** Dr. John G. Lovas, Dalhousie University, 5981 University Ave, Rm 5124, Halifax, NS B3H 1W2.

*The authors have no declared financial interests.*

*This article has been peer-reviewed.*

## References

1. Heaton LJ, Carlson CR, Smith TA, Baer RA, de Leeuw R. Predicting anxiety during dental treatment using patients' self-reports: less is more. *J Am Dent Assoc* 2007; 138(2):188–95.
2. Vassend O. Anxiety, pain and discomfort associated with dental treatment. *Behav Res Ther* 1993; 31(7):659–66.
3. Dionne RA, Kaneko Y. Overcoming pain and anxiety in dentistry. In: Dionne RA, Phero JC, Becker DE, editors. *Management of pain and anxiety in the dental office*. New York: WB Saunders Co.; 2002. p. 2–13.
4. Kvale G, Berggren U, Milgrom P. Dental fear in adults: a meta-analysis of behavioral interventions. *Community Dent Oral Epidemiol* 2004; 32(4):250–64.
5. Baron RS, Logan H, Kao CF. Some variables affecting dentists' assessment of patients' distress. *Health Psychol* 1990; 9(2):143–53.
6. Moore R, Brodsgaard I. Dentists' perceived stress and its relation to perceptions about anxious patients. *Community Dent Oral Epidemiol* 2001; 29(1):73–80.
7. Lundgren J, Berggren U, Carlsson SG. Psychophysiological reactions in dental phobic patients during video stimulation. *Eur J Oral Sci* 2001; 109(3):172–7.
8. Hosey MT. UK National Clinical Guidelines in Paediatric Dentistry. Managing anxious children: the use of conscious sedation in paediatric dentistry. *Int J Paediatr Dent* 2002; 12(5):359–72.