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Maximizing Beneficence and Autonomy

Ethical Support for the Use of Nonpharmacological Methods for Managing Dental Anxiety

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Abstract

This article examines advantages associated with nonpharmacological behavioral management techniques and suggests that there are benefits to their use (such as achieving a more lasting solution to the problem of dental anxiety) that are not realized with medication-based interventions. Analyses that use Kantian and existential viewpoints for exploring the use of medication versus behavioral interventions for managing life problems yield parallel conclusions: there are advantages gained by using behavioral interventions that are not always associated with medication-based interventions. These analyses, taken together with an understanding of the psychology of dental anxiety management, suggest that using nonpharmacological techniques for the management of dental anxiety can maximize adherence to the ethical principles of beneficence and patient autonomy. The authors discuss the barriers that make nonpharmacological interventions for anxiety management difficult for dentists to routinely use, and suggest that additional training in these methods and increased collaboration with mental health professionals are needed for dentists.

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Ms. Jones had a painful dental experience when she was a child and now avoids the dentist. She is so fearful that she avoids routine dental procedures and has not had her teeth cleaned for several years. Although Ms. Jones is not in pain, and would have her dental condition assessed, the fear she experiences makes it difficult for her to schedule an appointment. Ms. Jones sees an advertisement that promises that if you are afraid of dentistry, there is a way to have dental work done without experiencing fear (Jansen, 2003). The advertisement claims that you can relax while years of embarrassing oral health problems are wiped away without discomfort. Objectively, there is evidence that the promise in this commercial can be granted: with medication, a dentist can help patients in wide-ranging ways by helping them have dental work done that they would not agree to otherwise. However, despite the positive changes improved oral health can bring, is there a problem with offering medication as the only

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solution to fearful patients such as Ms. Jones? Is beneficence maximized by offering only pharmacological interventions to manage dental fear when behavioral techniques might also help?

Helping anxious dental patients by providing medication fulfills two important ethical obligations: promoting beneficence and supporting a patient's autonomy. The *ADA Principles of Ethics and Code of Professional Conduct* (American Dental Association, 2005) defines beneficence as the "duty to promote the patient's welfare." It further requires that "...the dentist's primary obligation is service to the patient ... The most important aspect of this obligation is the competent and timely delivery of dental care within the bounds of clinical circumstances presented by the patient, with due consideration being given to the needs, desires and values of the patient." Thus, helping a fearful patient obtain needed oral care serves the principle of beneficence. Similarly, since fearful dental patients actually desire dental treatment but cannot accept it because of their fear, providing patients a means to obtain desired treatment promotes patient autonomy. These are important principles to honor—but is there more to consider?

If completing dental procedures is the only goal, patients are helped by getting medication for anxiety: drugs decrease anxiety and facilitate treatment. However, when managing anxiety, we are dealing not only with oral health but with a patient's feelings and beliefs. In the words of the ADA ethics code, we must consider the "clinical circumstances" surrounding the anxiety. If one examines the management of dental fear with behavioral dentistry in mind, a more complex decision regarding the management of anxiety emerges.

The Clinical Circumstances Surrounding Dental Anxiety

Large numbers of patients report a fear of dentistry and for some patients, this fear may be great enough to prevent them from seeking dental care (de Jongh et al, 2005; Willumsen, 2004). Such patients avoid feared situations; so dental fear is associated with cancelled appointments, infrequent care, delaying care, and noncompliance until a dental condition causes pain (de Jongh et al., 2005; Humphris & Ling, 2000). The dentally fearful patient's avoidant behavior often exacerbates the situation because noncompliance with treatment is associated with poorer oral health (Kvale et al, 2004). Since everyone needs lifelong dental care, and since avoiding routine dental care places patients at increased risk for dental problems, staying away from the dentist can bring about the very conditions fearful patients wish to avoid (Willumsen, 2004). Moreover, once the patient has dental problems, it is likely that the fearful individual will require treatment interventions that are more invasive and unpleasant than prophylactic dental care experiences. Thus, a painful sequence of fear, avoidance, and negative consequences is set in motion (Willumsen, 2004).

Another contributing factor is that dental fear may actually make the dental experience more difficult for the anxious patient than it is for patients who are not anxious. It is generally believed that there is a reciprocal relationship between pain and anxiety, with fearful patients reporting that they experience more pain than do patients who are less fearful (Gatchel & Turk, 1996; Litt, 1996). Since the source of fear for many dentally fearful patients is the potential that they might experience pain (Malamed, 2003), this means that paradoxically, their fear may help bring about the very condition they seek to avoid. Because of the reciprocal relationship between fear and pain, and the subjective nature of both of these experiences, it is difficult to distinguish the management of dental fear and pain. However, it is clear that some patients who do not report experiencing dental pain do report experiencing marked dental anxiety. These patients may require anxiety management for dental procedures that most dental patients would rate as innocuous (Oosterink et al, 2008). These patients are the focus of this article.

Both behavioral and pharmacological approaches can be effective in helping patients tolerate dental procedures with more comfort.

Nonpharmacological Methods for Managing Dental Anxiety

When managing dental anxiety, dentists have a hierarchy of nonpharmacological interventions at their disposal. Dentists generally use these nonpharmacological techniques during the dental session; they rely heavily on a dentist's relationship-building and communication skills. Perhaps the most important nonpharmacological technique is iatrosedation, a relationship-building and communication approach that focuses on establishing trust (Malamed, 2003). There are a number of other communication interventions that a dentist can use that appear to facilitate a patient's comfort by allowing patients to have increased control over their experiences in the dental setting. These interventions include activities such as teaching patients to raise their hand to stop treatment (Botto, 2006; Humphris & Ling, 2000), slowly introducing new dental procedures with careful explanations of what patients will experience (Berggren, 2001; Milgrom et al, 1995), and teaching coping skills such as distraction (Botto, 2006; de Jongh et al, 2004; Weinstein et al, 1991). Advanced dental management techniques, which require additional training, include relaxation approaches such as modified imagery, modified progressive relaxation, and controlled breathing (Botto, 2006; Milgrom, 2002). Cognitive restructuring is another advanced technique that can be used (Berggren, 2001; Weinstein et al, 1991). If these techniques are not adequate, other behavioral interventions are available that require referral to a mental health specialist. These techniques include biofeedback-assisted relaxation, hypnosis, cognitive behavioral approaches, and formal systematic desensitization procedures (Berggren, 2001; de Jongh et al., 2005; Milgrom, 2002). Likewise, dentists have a host of pharmacological interventions at their disposal that they may use (Dionne et al, 2002). Both behavioral and pharmacological approaches can be effective in helping patients tolerate dental procedures with more comfort (Dionne et al, 2002; Kvale et al, 2004).

While there are several proposed etiologies of patients' fear of dental procedures, learning theory underlies many of the interventions that are used to manage dental anxiety (Humphris & Ling, 2000; Milgrom el al, 1995; Mineka & Zinbarg, 2006). Behaviorists posit that we may be predisposed to learn to fear dentistry (i.e., the notion of preparedness), and that classical conditioning, instrumental learning and social learning may be the mechanisms by which these fears are learned and maintained (Barlow, 2002; Humphris & Ling, 2000; McNeil, et al, 2006; McAllister & McAllister, 1995; Milgrom el al, 1995). Painful and socially embarrassing dental situations are likely to teach patients to fear dentistry—hence the need to manage both pain and anxiety. In addition, the reinforcing aspects of avoidance also play a role in the maintenance of dental anxiety (McNeil et al. 2006; Milgrom, 2002). In general, behavioral and cognitive behavioral theorists would assert that behavioral management interventions used by dentists involve relearning, redefining the situation, or teaching a new set of responses to the patient. The exact behavioral or cognitive mechanisms of the different interventions vary, but a positive relationship with a caregiver, good communication, developing trust, and giving the patient some control of the situation are seen as important for this "new learning" to take place (Botto, 2006; Berggren, 2001; Malamed, 2003).

According to cognitive behavioral learning theorists, this new learning might involve having patients develop

the belief that they can cope with the stressful situation. Patients may have enhanced coping skills (such as learning to use self-distraction or relaxation techniques), and this allows them to feel comfortable in what was once an overwhelming situation. Once these new skills and cognitions are learned, they are long lasting, and can result in decreased anxiety at future dental appointments (Kvale et al, 2004). In addition, since being dentally fearful can have far-reaching deleterious psychosocial effects (Locker, 2003), mastering dental fear may have positive effects for the patient that extend beyond improved oral health. Similarly, it is possible that coping with a feared situation increases the patient's overall self-efficacy. That is, patients gain confidence in their ability to cope with other feared situations (Cervone & Scott, 1995; Do, 2004).

If these are the clinical circumstances surrounding the fearful dental patient's behavior, what role should nonpharmacological interventions play in the management of anxious patients? To answer this question, one could adopt an evidence-based approach and examine the efficacy of medications vs. nonpharmacological interventions in quelling patient anxiety. While this is an important question, we will not take this approach. Another approach would be to consider practical considerations: Which patients would be unable to tolerate an appointment without medication, avoid dentistry, and suffer negative consequences because of dental avoidance? While these are both necessary and important inquiries, there is another important perspective: An intervention may be efficient and efficacious, but does it further the patient's autonomy and promote beneficence? This last question is not a clinical or empirical question, but a moral query. To answer this ethical question, there is guidance available from ethical analyses of similar issues in nondental situations.

Support for the Use of Nonpharmacological Methods to Manage Anxiety

Manninen (2006) examines the overuse of medication for managing problems of everyday life using Kantian theory. She asserts that when patients face challenges in life and elect to use medication as a fast solution, rather than dealing the problems they need to work on, they are cheating themselves out of an opportunity to learn and grow. Based on her analysis of Kantian principles, Manninen asserts that we have a duty to confront our difficulties because doing so allows us to gain self-knowledge and develop our human potential. Manninen does not argue that medications are never appropriate, merely that they provide a hollow solution when used as a shortcut to avoid the work that a more meaningful solution would require. She asserts that convenience and speed cannot take the place of long-term, quality solutions that come about when we work on the difficulties we face.

If we apply Manninen's work to the use of pharmacological interventions to manage milder forms of dental anxiety, the use of medication for patients who could learn to manage the dental appointment without such interventions might be seen as a loss of an opportunity for these patients. There is some evidence for this assertion. The successful behavioral management of anxiety can result in patients dealing with dental appointments more effectively (Kvale et al, 2004) and being less fearful at future appointments (Berggren et al, 2000). In addition, Willumsen (2004) asserts that patients treated for dental fear reported that behavioral treatment was beneficial to them in situations outside the dental office. This may mean that patients develop greater self-efficacy (Botto, 2006), develop a better understanding of their reactions in the dental setting (Willumsen, 2004), and learn improved skills for managing their fear in an anxiety producing situation (Berggren, 2001), when they learn to manage their own dental anxiety. If this is true, relying on pharmacological techniques without also attempting nonpharmacological solutions would not allow patients to derive these additional benefits.

A similar argument regarding the use of medication for depression and anxiety has been made using an existential philosophical position. Malloy and Hadjistavropoulos (2002) noted that with medication, patients' problems become the object of "treatment" rather than being something the patient has responsibility for and must manage. In addition, when using medication, all anxious patients are treated the same, and medication is "applied" to the problem. Thus, medication is responsible for the successful outcome, suggesting that the solution to the problem is outside of the individual's control. Conversely, cognitive-behavioral approaches view patients as individuals; each situation is different, and each solution unique. Again, the parallels to dentistry are clear: Behavioral management strategies honor patient autonomy by focusing on self-efficacy and individual differences.

The endorsement of the psychological benefits of working through issues of dental anxiety does not only come from psychological and philosophical viewpoints; there are voices within the dental community that endorse a similar position. Berggren (2001, p. 1359) writes,

> "... Medication sometimes is necessary to make it possible for a patient to gain new and positive experiences. If medication leads to a lasting coping ability and anxiety reduction, it is a beneficial approach. If the patient continues to need medication, we have not been successful."

Berggren's approach is consistent with the strategy of teaching coping and improving self-efficacy, and suggests that psychological benefits are the focus of any intervention employed, even when medication is used. Again, this does not mean that pharmacological approaches are not useful or are inherently harmful. (It is of note that Berggren outlines several situations where he believes pharmacological approaches are necessary and beneficial.) Instead, this approach points out that there may be additional benefits conferred by employing nonpharmacological techniques in the management of dental anxiety, and that these benefits should be considered when selecting a behavioral management strategy.

Levering and Welie (2010) have also commented on the advantages of using behavioral methods for managing fearful children. They suggest that parents may encourage dentists to use nitrous oxide as a primary management strategy at times because they want their children's dental work completed quickly. Likewise, using nitrous oxide as a management strategy also benefits dentists because it allows them to work with calm, cooperative children. However, while meeting the needs of the parents and provider, the repeated use of nitrous oxide might not always be the best choice for children. Besides the physical risks associated with the use of nitrous oxide, these authors note that, "Chairside patience on the part of the provider, step-by-step learning and development of coping skills by the child, and improved communication with the parents regarding their child's evolving maturity, are unquestionably in the best interests of the child..." (p. 44). Since these behavioral goals are better supported by nonpharmacological methods, Levering and Welie are acknowledging the potential advantages of behavioral and communication methods for managing dental anxiety.

Of course, the positive benefit conferred by the use of nonpharmacological strategies needs examination on a case-by-case basis to see if beneficence and autonomy are enhanced in a particular situation. For example, an anxiety management strategy for a patient undergoing a highly threatening, one-time dental procedure such as oral surgery, would likely be different from those strategies considered for a mildly anxious patient undergoing routine, benign, and repetitive procedures such as periodic x-rays (Oosterink et al, 2008). The relative value of nonpharmacological interventions would likely be magnified in the latter case, since the procedures involve lifelong, periodic procedures that most patients can easily tolerate and that the patient must learn to cope with to obtain routine care. Thus, learning to cope with these procedures would positively affect the patient's oral health and increase the possibility of compliance with future dental treatment. In sum, we are aware that many factors need to be weighed when selecting a dental behavioral management strategy. We are suggesting that the long-term advantages associated with the use of nonpharmacological methods be considered when deciding on an anxiety management strategy.

The successful behavioral management of anxiety can result in patients dealing with dental appointments more effectively and being less fearful at future appointments.

Practical Barriers to Using Nonpharmacological Management Methods

Despite some of the advantages of nonpharmacological methods, there are barriers dentists encounter when attempting to use these strategies with fearful patients. There are data to suggest that dentists find working with anxious patients stressful (Hill et al, 2008), which is not surprising, because they also report that they do not feel adequately trained to work with fearful patients (Hill et al, 2008; Weiner & Weinstein, 1995). Behavioral management strategies require considerable effort on a dentist's part; when using them, it takes longer to treat a patient, a dentist has to have better developed communication skills, and a dentist must put effort into the difficult interpersonal work of paying attention to patient's emotional messages (Chambers & Abrams, 1992; Friedman, 1997). In addition, nonpharmacological strategies usually require that providers give their patients more control over the delivery of treatment, so dentists may have to alter their usual ways of providing care. Since treating fearful patients requires more time and resources (i.e., the assistant's time, use of the chair), practice management concerns (such as the ability to bill for these time-consuming services) may further limit the attractiveness of this option (Hill et al, 2008). Moreover, for highly anxious patients, dentists may need to share responsibility for the behavioral management of fearful patients with mental health care providers. These difficult cases may require additional skills: a dentist must be comfortable with obtaining consultations and making referrals to mental health professionals. (de Jongh, 2005).

Reasons Dentists May Avoid the Use of Nonpharmacological Management Techniques

Dentists may also tend to embrace pharmacological methods because they believe such methods better support patient beneficence than do behavioral and communication based approaches. Since dentists may believe they do not have the requisite management skills to treat fearful patients with nonpharmacological strategies, they may view managing fearful patients as a specialized service they do not provide (Hill et al, 2008; Weiner & Weinstein, 1995). Thus, they may avoid nonpharmacological management techniques because they believe they cannot use them effectively. In addition, dentists have an obligation to manage patient pain, anxiety, and discomfort. Since nonpharmacological techniques do not promise certain success, and, in fact, may make the patient's anxiety worse if used ineffectively (Litt, 1996), dentists may feel that they are providing their patient less than optimal care if they use nonpharmacological techniques to manage anxiety.

Similarly, dentists may feel they can do better clinical work if they use medication-based management approaches, because nonpharmacological methods are seen as difficult to use. Using communication and behavioral methods require dentists to divide their attention between two difficult, competing tasks. Practitioners may feel that they can perform higher quality clinical procedures if they are not distracted and if they are working with a still, calm patient. Accordingly, dentists may believe that by using medication to manage their patient's anxiety, they are able to do better clinical dentistry, and thus, are acting in the most beneficent way towards their patients. It is of note that this logic assumes that dentists are not skilled or effective in their use of nonpharmacological techniques, and, thus, will likely not be successful or efficient when using these interventions. Training in the effective use of nonpharmacological techniques would likely alter this perception.

There is evidence that barriers to using nonpharmacological dental management affect dentist's practice patterns. McGoldrick et al (2001) examined dentist's referral pattern of fearful patients and found that few patients were being referred to specialists for behavioral management of dental anxiety in the sample studied. They suggested that the dentists may not have been aware of the role that could be played by psychologists in the treatment of dental phobia. Tay and others (1993) found that dentists who have had more instruction in the use of anxiety management during their training were more likely to report seeing a greater number of fearful patients in their practices than did dentists who received less behavioral sciences training. Taken together, these findings suggest that the barriers to using nonpharmacological techniques need to be addressed before dentists will feel comfortable using these techniques in their practice or referring fearful patients that they cannot adequately manage to mental health professionals.

In sum, while dentists may recognize the advantages of nonpharmacological approaches, it is clear that using these techniques places a significant burden on a dentist. The barriers just described present painful choices for dentists: A recent submission to the American Dental Association's "Ethical Moment" column (Gamba, 2008) describes a dilemma where a dentist had successfully treated a fearful patient although it had been difficult for the dentist to do so.

Behavioral management strategies honor patient autonomy by focusing on self-efficacy and individual differences.

The patient wanted to continue to receive treatment from the provider, but the dentist expressed concern "...that it may not be in the best interest of my practice to spend the kind of time it would take to work with this patient" (p. 1685). The dentist was seeking advice about the best course of action. Clearly, these cases create difficult choices for dentists who may feel they do not have the skills to work with these hard-to-treat patients.

Patient Objections to Nonpharmacological Methods

Dentists' lack of confidence in their chairside anxiety management skills may influence how they introduce and discuss nonpharmacological management options with their anxious patients. This, in turn, could influence patients' acceptance of these options, resulting in fearful patients rejecting nonpharmacological methods of management and, instead, requesting medication. This could make negotiating an anxiety management strategy difficult, because when faced with requests for medication from a fearful patient, dentists may not wish to challenge what they perceive as their patient's autonomous choice for treatment. However, while honoring patient autonomy is important, it is worth noting that fear may inhibit patients' ability to make autonomous decisions. Behavioral management strategies could be useful in uncovering such barriers to autonomy and may ultimately maximize patient autonomy by identifying barriers that keep patients from seeking dental care. Merely acceding to patient requests for medication, out of a misguided respect for autonomy, ultimately fails to do so. Instead, having an open discussion about all options may provide more choices for the patient; this approach will truly improve patient autonomy.

Do Dentists Have a Duty to Consider the Benefits of Nonpharmacological Management Approaches?

One could assert that dentists do not need to promote nonpharmacological methods because the advantages of these techniques are primarily psychological, thus conferring benefits that are beyond what a dentist needs to consider when treating a patient. We believe that this position is difficult to maintain in light of the ADA code that asserts that beneficence requires that "The dentist has a duty to promote the patient's welfare." Given what is known about the genesis and maintenance of dental anxiety, and the obligation that dentists have to manage both dental fear and anxiety in their patients, it is clear that dentists play an important role in how these conditions are managed. Beneficence requires that dentists consider the results of their interventions and act in a way that will have positive, long term health outcomes for their patients overall, not just their oral health. Similarly, informed consent requires the presentation of acceptable treatment options along with the expected benefits and risks of these alternatives. Excluding a discussion of alternatives to nonpharmacological interventions (when they are appropriate), would not fully honor this process.

Another possible objection is that our conception of beneficence is too broad and this expanded notion of beneficence would require numerous interventions of the dentist that are beyond the scope of dental practice. In short, this argument would assert that dentists are not obligated to consider beneficence beyond the clinical encounter, because to interpret the "duty to promote the patient's welfare" in the ADA code this broadly would open a floodgate of duties that would overwhelm dentists. However, this intervention arises within the context of the clinical encounter and involves a choice

about different interventions for anxiety management. As such, we frame this not only as a duty that arises in the clinical encounter, but as one that can benefit the patient beyond the clinical encounter. In this way, we view managing dental anxiety as similar to other medical conditions encountered in the dental setting; they may require dental management, consultation, or referral.

Others join us in this view. Ozar and Sokol (2002) asserted a similar position in a case analysis where a dentist successfully treated a fearful child with nonpharmacological methods. In their discussion, they assert that, "... a dentist is obliged to obtain and maintain the skills the dentist needs to educate patients and prompt them to levels of cooperation needed to maintain their oral and general health (with referral to those who are more skilled in these matters as another option if the dentist's own skills are too limited)" (p.138). Ozar and Sokol emphasize that a dentist's obligation extends to maintenance of their patients' "general health," pointing to a broader obligation dentists have to patient outcomes outside of just oral health needs. They acknowledge that it may be hard for dentists to work with difficult patients (such as those who are noncompliant and fearful), but also point out that there is an ethical necessity to do so.

How Best to Serve Beneficence and Patient Autonomy?

So, how best to manage dental anxiety? Nonpharmacological management techniques offer an opportunity for patients to learn skills that may serve them in future, are respectful of patient autonomy, and produce beneficial effects for the patient (Manninen, 2006; Malloy & Hadjistavropoulos, 2002). For the sake of comparison, we have presented pharmacological and nonpharmacological options as if they were mutually exclusive alternatives; in fact, they are generally used simultaneously. Many practitioners start with communication, psychological, and behavioral approaches, and employ pharmacological interventions as these interventions are needed (Malamed, 2003). This strategy is consistent with the present analysis, that argues that a dentist should, when appropriate, explore all the nonpharmacological interventions a practitioner can competently deliver, not only because these techniques can enhance pharmacological interventions, but because they will likely result in improved patient autonomy as well as maximizing patient beneficence.

Since the benefits of nonpharmacological approaches are considerable, we would also suggest that work is needed on the barriers that prevent dentists from employing these methods in their practices. Solutions such as providing continuing education for dentists in nonpharmacological approaches to anxiety management, improving dentists' skills in making referrals and obtaining consultation from mental health professionals, and recognizing the need for additional time in the treatment of fearful patients, would be important first steps to consider. Even if nonpharmacological approaches are not the appropriate choice for many procedures, it is of note that there are other advantages to having dentists learn how to use better nonpharmacological management skills: Nonpharmacological approaches can help enhance other anxiety management techniques (Malamed, 2003) and, most importantly, can help prevent patients from learning to fear dental situations in the first place.

What about the advertisement that promises patients they can take medication and avoid facing their fears? This strategy for handling fear might indeed be necessary for some patients. For example, Kvale and colleagues (2004) point out that patients with few psychological resources who need a great deal of difficult dental work would benefit from pharmacological interventions. But before suggesting an approach, the decision as to what is most appropriate for the patient requires a chairside conversation that assesses the patient's needs and considers all of the management options for anxiety available—including relationship building and good communication with the dentist. Understanding the benefits of nonpharmacological interventions and explaining them along with other options, not only ensures good informed consent, but also promotes autonomy, and can maximize beneficence. Beneficence is served when patients and dentists explore pharmacological and nonpharmacological interventions together, considering the benefits of learning coping skills and increased self-efficacy that may extend beyond the dental setting. This option offers more than just the promise of an easy solution. ■

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