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### Pain Management in Dentistry

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# Pain Management in Dentistry

The most common dental complaint is pain. It accounts for more than 80% of all dental visits.<sup>1</sup> Pain diminishes the quality of life for many people, although it also may be a vital teacher or a warning message to be heeded. How humans process pain is a complicated, individualized process affected by genetics, personality, life experiences and straight forward physiological process.<sup>2</sup>

The International Association for the Study of Pain (IASP) has defined pain as “an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage.”<sup>3</sup> Pain impacts an individual’s quality of life. In an effort to ensure better pain management, many health care systems in the United States have required routine outpatient screening for pain. This action labels pain as the “Fifth vital sign”.<sup>4</sup> The other four vital signs are blood pressure, temperature, pulse and respiration.

Fear, anxiety and pain are interrelated. Many people will endure severe pain before seeking professional care, often because of the fear associated with pain. Dental fear is understood as an unpleasant mental, emotional or physiologic sensation derived from a specific dental-related stimulus.<sup>5</sup> Dental fear and anxiety emanates from different causes, though most may be traced to previous negative experiences such as hearing negative encounters from family and friends or, perhaps, a general fear of needles.<sup>5</sup> Pain during dental treatment is more associated with invasive procedures, tooth extractions and surgeries, but it may be associated with noninvasive procedures. Local anesthesia is referred to as a painful procedure generating anxiety.<sup>6</sup>

Research has shown that fifty to eighty-five percent of all dental fear is rooted in experiences that occur during childhood or adolescence.<sup>5</sup> Specifically, intraoral local anesthesia is perceived as the most painful and, in some instances, as the only painful part of the treatment leading to in extreme cases, avoidance of dental care.<sup>7</sup> The dental assistant is an ideal position to identify and coach individuals in alleviating their fears and anxiety relating to pain.

Patients may experience an overwhelming amount of anxiety and apprehension in anticipation of pain. This phenomenon is referred to as “pain catastrophizing”. This is an exaggerated negative mental set brought to bear during an actual or anticipated painful experience. A patient’s perception of a dental care experience as catastrophic can result not only in poor satisfaction with the therapy but also in avoidance of necessary treatments, causing the deterioration of oral health. Key indicators of patients who catastrophize are individuals who pay excessive attention to pain(rumination), exaggerate the threat of pain (magnification) and feel unable to cope with their suffering. Examples of catastrophizing behaviors are garbled, unintelligible speech and agitation. During dental treatments, greater pain catastrophizing is associated with increased pain, dental anxiety and negative thoughts regarding pain and dental procedures. Individuals may make statements such as “My heart is pounding”, “I’ve got a knot in my throat “or “I’m shaking like a leaf”.<sup>8</sup> It is crucial for members of the dental team to identify patients who exhibit fear and anxiety related to dental treatment. The dental assistant is a naturally caring and compassionate individual who can start the conversation to permit the patient to express his or her fears in a supportive shame-free environment. After reviewing the patient’s medical history, the dental assistant can inquire if the patient is currently experiencing any type of pain. It is imperative to include open-ended questions so as to create a dialogue with the patient. Examples of open-ended questions relating to pain anxiety are as follows: “Are you comfortable with today’s procedure?” Or “What concerns would you like to address before the doctor begins today?”

There are often clues that indicate a patient is experiencing anxiety related to pain. The patient’s blood pressure may be elevated, and they might exhibit rapid heartbeat and labored breathing. The patient may clutch the dental chair or insist on holding someone’s hand. Their knuckles may be white from holding on to objects or individuals. Missed or cancelled appointments are also indicators of an individual who is fearful of pain. These symptoms of fear are real and should not be dismissed under any circumstances.

There is a plethora of options for the dental team to manage patients with pain and alleviate anxiety. These options are classified as traditional and alternative approaches to anxiety and pain management. The dental team members may want to try different approaches

depending on the patient and the severity of the anxiety.

Traditional methods include antianxiety medications such as diazepam (Valium) or alprazolam (Xanax).<sup>5</sup> Traditional pain relievers such as ibuprofen or acetaminophen may be purchased over the counter. Other treatments such as fluoride varnish, topical gel, lidocaine and other anesthetic products may be helpful. These products must be administered by a licensed dental personnel. Nitrous oxide inhalation analgesia can increase patient's tolerance for local anesthesia.<sup>9</sup>

Alternative approaches to managing anxiety towards pain are numerous. Many of these techniques are simple and do not require any special training. Visualization, music therapy and simple relaxation techniques are tactics that any team member can utilize to assist an anxious patient.

Distraction is an effective management technique wherein the patient is engaged in conversation or television or uses headsets connected to CD players with music, audio books or guided relaxation, all selected by the patient. Here the focus is not on the procedure but on the activity that the patient is engaged in.<sup>10</sup> This is primarily effective in short but critical procedures such as fabrications of night guards and exposing radiographs.

Deep breathing can help thwart hyperventilation and syncope, which is quite common in persons who are anxious from the expectation of pain. Patients are instructed to breathe through their nose and exhale slowly. This will allow them to relax and achieve a calm state before and during the procedure.

Guided imagery is another useful technique, wherein the patient is taken on a "mental vacation".<sup>5</sup> Patients are encouraged to close their eyes and envision a place where they feel safe and secure. Concentrating on that haven or safe place will help alleviate tension and anxiety.

The power of suggestion can be profound. Both pediatric and adult patients can assign personal interpretation to the terminology used during dental procedures especially during the administration of local anesthesia. Choosing words carefully can reduce the imagery that may be associated with poorly chosen terms such as "poke", "pinch", and "burn", for example. Positive communication and establishing trust are important with all patients, but especially

when treating anxious or fearful patients. Trust provides a foundation for relieving anxiety in order to better support patients.<sup>11</sup> A few simple practices to establish trust are meeting and greeting the patient in the reception area, maintaining eye contact, speaking in a calm and reassuring manner. The body language of the dental assistant plays a key role in reducing anxiety.

Facial expression and posture that exhibit self-confidence in the dental assistant are essential. Debriefing after the procedure provides patients with an opportunity for a focused discussion, to report which aspects worked for the patient after having employed one of the alleviation techniques. Patients feel empowered when they play an active role in determining future strategies for their comfort. Debriefing after appointments can be critical for fearful patients because it helps them to develop trust in clinicians and it sets the stage for success during subsequent visits.<sup>12</sup>

As in all relationships, positive communication is crucial for success. Guidelines for positive patient relations in regards to pain are simple:

- Display a warm and caring attitude.
- Explain in complete details treatment plans for each appointment.
- Address the fear of not knowing what to expect and loss of control during treatment.
- Always obtain patient's permission to begin treatment when an instrument is going to be placed in a patient's mouth.
- Indicate how the patient can participate when he or she is becoming apprehensive. For example, the patient can raise his or her hand as an indication for the clinician to stop the treatment.

The clinician should choose words that will focus on the outcome. Examples of affirmative outcomes are "The gel will make you salivate as your gums are becoming numb" or "The machine will discharge a mist of cool water." The patient can be comforted further by delineating each detail of subsequent appointments. The dental assistant should always appear confident and in control. The dental team member's voice is an effective instrument to assist in calming and comforting a patient.

Patients should be able to detect calmness and patience from the dental team member's voice upon the first encounter. All concerns related to anxiety, discomfort or pain should be adequately addressed in a timely fashion. Clear explanation of procedures is vital to patient

care.

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