MP1: Advances In Dental Hypnosis for Dentists and Psychology Professionals; Ashley Goodman, DDS, ABHD; Gabor Filo, DDS; ABHD; Edward Mackey, PhD, MSN, MS, CRNA, FAPA; 4 CME/CE

This workshop will review basic, intermediate, and more advanced hypnotic skills including rapid, time saving techniques as they apply to the providing of effective and comfortable dental care for both the providers (hygienists and RDAs) and patients. The uses of creative visualization, densensitization, restorative appliance acceptance, control of saliva and blood flow, more rapid healing, pain control, etc., will be demonstrated. Specific applications of clinical dental uses for behavior modifications, relaxation, pediatric situations, anxiety and oral habit control, minimizing gagging, enhancing personal communications, and self-hypnosis stress reduction methods for the dental patient, the dental care provider, and psychologists working with the dental team will be examined. Patient care will be enhanced through a greater appreciation of therapeutic communication by dental personnel. Psychologists will have an insight into the dental milieu and its requirements. They will then be better able to assist their local dental colleagues and their patients. Dentists will walk away with Monday morning techniques for their phobic and anxious patients.

Upon completing this session, the participant should be able to:
- identify and recognize appropriate uses of hypnosis to aid in the treatment of dental problems. They will develop different hypnotic techniques appropriate to the dental milieu and be able to assess which is appropriate for use in differing therapeutic situations
- identify the uses of hypnotherapy for behavior modification, relaxation, anxiety control, fear elimination, quelling undesirable habits (tongue thrust, reverse swallowing, TMJ dysfunction, bruxism, clenching), amnesia, analgesia, anesthesia, pain control, prevention of gagging and nausea, control of saliva and bleeding, creative visualization for healing, restorative appliance tolerance, pretreatment desensitization, selfimage, selfesteem, and confidence; and have approaches for utilizing various hypnotic techniques, metaphors, and therapeutic communication for the above listed; and
- provide insight into the real world of the dental practitioner so that psychologists have a concrete method by which to approach, enlist and nurture dental referral sources; group discussion and practice of hypnotic techniques and phenomena.

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What will you change when you return to your practice as a result of this session?

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After this session, what unanswered questions/conundrums/concerns, if any, to you have related to this topic?

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General Comments:

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I. Introduction
1. Hypnosis is an altered state of awareness in which an individual withdraws their peripheral awareness and concentrates on a focal goal
2. Not sleep. A deep state of concentration rather than relaxation. Communication is maintained and is direct to the subconscious
3. Suggestion is the process of accepting a proposition for belief in the absence of intervening and critical thought that would normally occur. The absence of critical thought distinguishes suggestion from persuasion
4. The induction and manipulation of expectations are vital components. A placebo is a form of suggestion but a suggestion is not a placebo
5. Trance: every patient/client’s trance is a bit different. Once cannot always tell if they’re in a trance because it may only be a change in perceived environment or an increase in receptivity to suggestion. A response to the complex set of suggestions that comprise a hypnotic induction.
   a. The patient/client experiences a narrowing of attention and pays less attention to their external environment and more to the actual process. They listen more intensely to the therapist and if the suggestions don’t conflict with the patient/client’s moral views and values, they will comply
   b. Many patient/clients who demonstrate a hypnotic appearance (limp relaxation, glassy stare, psychomotor retardation) do not respond to suggestions; others respond to suggestion without that appearance. Hypnotic appearance can be changed by appropriate suggestions without affecting the response to suggestions.
   c. May sometimes be distinguished externally by a sleep-like appearance, fixed and glassy stare, psychomotor retardation. Internally by a calm dissociated state with possible perceptual distortion and amnesia. The ability to remember and retain control always remains with the patient/client.
II. History
1. Grouping of suggestions to achieve a trance began in Egypt; Ebers papyrus (1,000 BCE); “temple sleep”
2. “Druidic sleep” Druids
3. Mesmer magnetic fluid theory “Animal Magnetism” discredited in 1784
4. John Elliotson, past president of the Royal Medical Society, performed painless surgery in the 1840s. Also promoted the stethoscope
5. James Braid replaced the “Animal Magnetism” theory with the concept of suggestion; anesthesia by suggestion. In 1847 he discovered that all the major effects of his newly termed “hypnosis” could be induced without sleep. “Father of Modern Hypnosis”
6. Bernheim: Books about hypnosis and psychological conditions. Later in his career he used formal hypnosis less and less. The same results could be obtained by suggestion in a waking state
7. Peak of general acceptance 1860 to 1900. Followed by a rapid decline in acceptance and disuse in surgery with the introduction of chemical anesthetics (nitrous oxide)
8. Freud used hypnosis but later discarded it in favor of psychoanalysis
9. In 1958 the American Medical Association accepted hypnosis in medical practice as a therapy
10. In 1961 the American Psychiatric Association accepted hypnosis as a specialized psychiatric procedure

III. Variations of Susceptibility
1. In general, the best hypnotic subjects were found to be curious, adventuresome and imaginative; more hypnotizable than a competitive, controlled, and/or fearful (of hypnosis) individual.
2. Rough percentages: 5% non-suggestible; 95% light trance; 55% medium trance; 20% deep trance
   a. Children are susceptible to hypnosis and more susceptible than adults
   b. They reach a susceptibility apex at about age nine
   c. Between the ages of six and nine there is a steady gain in susceptibility
   d. After age nine there is a gradual decline until about age fifteen through the early twenties, then a leveling off with normal adult susceptibility
   e. The individual is more susceptible to hypnosis in mid-childhood than at any other time in their life
3. 80-90% of the population can be hypnotized to a useful level for pain or anxiety control
4. If left alone for 10-20 minutes, a deeply hypnotized person may come out of a hypnotic trance unassisted
5. Voluntary muscles can be induced into a deep relaxation or rigidity. Involuntary muscle tone can be influenced and effects on heart rate, blood pressure, bleeding, and salivation are demonstrable.
6. All five senses can be influenced. Visualization, concentration, and memory can be greatly enhanced.

7. Nitrous oxide: Patient/clients can hear suggestions but their memory of the suggestions is temporarily blocked; significantly more responsive to suggestions for behavior after removal from nitrous oxide than those without.

IV. Levels of Hypnosis


2. Hypnoidal: lightest trance response with extreme relaxation. Eyes closed, sometimes eyelids fluttering. Similar to pleasant drowsiness prior to natural sleep. Traditional rapport is established.


5. Deep trance (somnambulism): patient/clients can open their eyes without awakening. Amnesia without suggestion. Surgical anesthesia and positive and negative hallucinations demonstrated. Patient/clients may appear alert and awake. Eyes may be open. Speech normal and muscle activity is not impeded.

6. Posthypnotic suggestion: a suggestion given during hypnosis to take effect after the trance state has terminated. Essential in hypnotherapy.

7. Autohypnosis: ability of the patient/client to enter hypnosis, when he wants to, independent of the presence of the therapist. A function of posthypnotic suggestion.

V. Applications of Hypnosis (Dental)

1. Behavior control – the professional has the responsibility for behavior management.

2. Relaxation, anxiety control.

3. Fear elimination – future expectations are built upon past experiences; perceptual confusion (apples vs. oranges), time distortion.

4. Quelling undesirable habits, tongue thrust, reverse swallowing, TMJ dysfunction, bruxism, clenching.

5. Amnesia – children better than adult (73% to 80%) with hypnosis.

6. Analgesia, anesthesia, pain control.

7. Prevention of gagging and nausea.

8. Control of saliva and bleeding.


10. Self-image, self-esteem, and confidence.
VI. Hypnotic Techniques
1. Secure the patient/client’s attention
   a. Entry into a child’s world must be at their level. Allow for a shorter attention span with more fantasy and imagination
   b. Utilize similar communication representational modes
2. Interview
   a. History
   b. Desensitization
   c. Pre-induction
3. Formal induction
4. Informal induction, waking suggestion, and semantics
   a. Constant monologue with proper word choice
   b. Voice control – softer, quieter
   c. Body language – smooth, gentle, slow movements
   d. Metronomic cadence to carotid pulse – tympanic membrane artery
5. Creative visualization – involve multiple senses
6. Reframing – symptom substitution, change in perspective
   a. Secondary benefit?
7. N.L.P. (neurolinguistics programming) – breathing and set-up of trigger point for relaxation
8. Distraction and sensory confusion – needleless syringes, taste of anesthetic vs ice cream, rewards (toys), glove balloons
9. Concurrent use of nitrous oxide, etc.
   a. Produces an altered state of consciousness similar to hypnosis
   b. Facilitates and deepens normal and resistant patient/client induction

VII. Stages of Induction
1. Preinduction or mindset: to develop a state of positive expectancy in the patient/client leading to rapport and acceptance of the trance state. An explanation of hypnosis and alleviation of patient/client concerns. Good time for indirect suggestions. Patient/client should relax, concentrate, give free run to their imaginations. Voluntarily agree to let mind and body behave involuntarily, and be responsive to suggestions of the therapist.
   a. Essential conditions are motivation, removal of doubts and fears, fixation of attention. When attention is fixed, the field of consciousness becomes narrowed and the unconscious mind becomes accessible. Suggestions then slip past the conscious mind and enter the subconscious where they are accepted without criticism. Relaxation prevents anxiety arousal. Limitation of voluntary movements, monotony, and suppression of all ideas except those upon which attention is to be concentrated. Most failures to induce hypnosis are due to a lack of adequate preinduction of the patient/client and their perception of a lack of confidence on the part of the therapist
2. Tests for susceptibility: ability to accept suggestions in the waking state. Brief. (optional)
3. Induction of trance: sensory intake at a minimum while their motor activity is held at a minimum. Repeated suggestions given in a monotone for relaxation, heaviness, and sleep. The
therapist should look for psychological changes in the patient/client, such as eye movement, facial and body muscle relaxation and deeper, slower breathing.

4. Deepening or stepping the trance: a reinforcement of the induction stage to produce greater patient/client relaxation and compliance to achieve a therapeutic level. “Spiral of belief”: the patient/client has experienced certain things happening after their occurrence was predicted by the therapist. Remind and take further to allow processes in the situation to deepen. “Breathing will relax you more; background noises only serve to help focus your concentration, visualization is better and takes you deeper into a more pleasant, relaxed feeling.” A continual focusing on internal stimuli and mental imagery.

5. Utilization of suggestion phase: stage where hypnotic and posthypnotic therapeutic suggestions are finally given. The suggestions for desired behavior and the cue to incite the desired response. All suggestions made within hearing distance of the patient/client should be positive. Alert staff members. Suggest “ego strengthening” and reintroduction triggers. Posthypnotic suggestions for “autohypnosis” with memory, reinforcement, and trance strengthening. If any continuing unwanted suggestions regarding a changed state (numb hand, etc.) were given; these must be removed.

6. Rising and signal to awaken: level of patient/client relaxation and hypnosis are lightened and expectation suggestion for awakening is introduced.

7. Out of arousal: signal given, after reinforcing suggestions, allow for return to wakefulness. Give adequate time to arouse comfortably. A rising tone with suggestions for feeling refreshed, wide awake, and pleasure to be associated with the hypnotic experience.

VIII. Formal Induction

1. Obvious guiding of the patient/client with recognizable steps
   a. Eye fixation, progressive relaxation: suggestions of eye fatigue and heaviness culminated in eye closure and further suggestions deepen trance. Suggestions for awareness of sections of the patient/client’s body relaxing.
   b. Eye fixation, progressive relaxation and distraction: patient/clients who try to analyze. All the above plus have patient/client count backward from a high number.
   c. Raised arm, levitation: visualization of one’s hand with weights and then another with helium filled balloon(s), ball in bucket, sand-filled bucket, etc.
   d. Guided imagery: tv or movie on closed eyelids become clearer as relaxation progresses. Great for kids.

2. Rapid inductions: eyes open wide, look up at top of head; let eyelids relax and close and spread to the rest of the body.

IX. Informal Induction

1. Indirect hypnosis: communication can be verbal and nonverbal (body language, touch, story-telling)

2. Subliminal use of hypnotic suggestion bypasses most of the anxieties which causes resistance and reduces the time needed. Time is one of the main reasons that the use of
hypnosis took a back seat to pharmacological sedation in behavioral modification and anesthesia/analgesia.

3. Behaviors which are traditionally associated with hypnosis can occur without “formal” hypnotic induction.

4. Induction is not a monotonous, repetitive monologue by the therapist. The induction does not cause hypnotic behavior, but merely defines the situation (roll playing necessary?)

5. Permissive suggestions, rather than authoritarian. Patient/client’s responses are utilized, i.e. eye closure not readily forthcoming, then the therapist discontinues those suggestions and continues with drowsiness and tiredness which may lead to eye closure; or how relaxing keeping eyes open might be.

6. The emphasis is on the patient/client and their hypnotized intrapsychic functioning (subconscious). Indirect, paradoxical, and permissive suggestions cause the patient/client to act in certain hypnotic ways.

7. Patient/client will experience and qualify their hypnotic modified behavior if the therapist communicates in such a way that the patient/client has little alternative but to respond hypnotically. Suggestions are often sophisticated, subtle and given in a round-about way (metaphor)

8. Obscure and integrated therapy which is not obvious to the patient/client... requires informed consent? Not time consuming. Suggestions can be spoken to the nurse, with the patient/client present, and still be effective. “You may notice how relaxed and comfortable he/she appears while sitting in a dental chair. Their enjoyment and pleasure will increase with time and the number of visits.”

9. Appearance is more “mystic” than formal trance approaches when suggestions are acted upon.

10. Neurolinguistic Programming (NLP): behavior for every given person is patterned and predetermined. How they interact with their world and how they can change their interpretation of their world to alleviate their distress and/or induce behavior modification to assist coping with their life more effectively.
    a. Primary representation system for communication: visual (I see what you mean), auditory (I hear what you’re saying), kinesthetic (I feel that I understand you), gustatory (it leaves a bad taste in my mouth). First three more common.
    b. Direction of gaze: upward accessing visual information, horizontally accessing auditory information (left = recall, right = constructing). Downward to left accessing auditory information; downward to right is kinesthetic. Gaze not focused in distance is visual.
    c. Communication with the patient/client in their representational system verbally (involve all five senses), and also at an unconscious level by tine, phrase emphasis (analogue marking), and movement.
    d. Anchors (triggers) for the patient/client’s conditioned response.

X. Pitfalls

1. Headache, confusion, anxiety, drowsiness.
2. Delayed effects of posthypnotic or un-cancelled hypnotic suggestions, misunderstanding of suggestions
3. Abreaction: a spontaneous emotional outpouring due to the surfacing of repressed memories. Central to certain types of therapy, but may occur during a normal induction. Give sympathetic support and encouragement to go naturally through the abreaction
4. Transference and countertransference: strong positive or negative patient/client feelings towards the therapist by identification with someone from the past. Countertransference is an emotional involvement of the therapist to the patient/client
5. Restriction of use of hypnosis to the therapist’s field of expertise
   a. Patient/clients with a history suggesting psychiatric disorders or endogenous depression should be treated by an experienced therapist in the field. A careful history is important
6. Feeling of power by the therapist

XI. In Closing
1. Purposefully, no recipe was given for hypnotic induction. The technique must vary dependent on the profession, patient/client, situation, and objective
2. Learn subliminal behavior modification for patient/client management and stress reduction
Pain (Anxiety)

1. Theory (Wall)
   a. Information about stimulus transmitted to CNS by peripheral fibers
   b. Spinal cord or fifth nerve nucleus signals are facilitated or inhibited by other peripheral nerve fiber signals.
   c. Descending control systems which originate in the brain modulate the receptiveness from the transmitting cells.

2. Mechanism: Thought that the higher cortical centers are inhibited during deep hypnosis, preventing pain impulses into awareness.

3. Pain is a signal that something is amiss, whether physical or psychogenic.
   b. Chronic pain may also appear as a conversion symptom and present atypically.
      “I live with the pain” may be interpreted by the subject as “if I didn’t have the pain, I’d be dead.”

4. Hypnosis doesn’t remove pain (objective findings the same), but merely reduces its perception.
   a. Pain is registered but ignored.
   b. Pain can’t just be “commanded” away.

5. Pain perception has both physical and psychological components.
   a. Physical: burning, sharp, shooting, dull, aching, throbbing, etc.
   b. Psychological: discomforting, distracting, gnawing, hopeless, depression, anguish, frustration, reliance, etc.

6. The psychological variables can exacerbate or reduce the subjects appreciation of the physical “pain” stimulus. Pain responses are not only of a physical nature (somatogenic origin), but also are attenuated by many psychological variables such as anxiety, focus of attention,
expectations, the subjects interpretation of what “pain” is, secondary gain, conversion symptoms, and various psychopathologies, etc.

a. Excellent rapport and trust needed between patient/therapist
b. Patient requires high motivation
c. Can have organic and psychogenic pain at differing rations
d. Psychological pain origin: underlying problem must be attended to first. Make sure there is no organic problem or secondary benefit (attention, avoiding work, gaining sympathy, workman’s comp. payments, avoiding responsibilities).

7. Anxiety

a. When the fear of pain is reduced, the perception becomes more tolerable.
b. Pain threshold varies greatly from individual to individual. The greater the fear, anxiety, and anticipation, the lower the threshold for that individual.
c. Relaxation may also relieve muscle pressure on nerves.

8. Get a complete history and try to get as complete a description of the pain as possible, including the patients imagery of pain (color, dull, stabbing, etc.). Use the same description, with appropriate attenuation, while giving suggestions for “creative visualization” for “healing.”

a. “Picture worth 1000 words” in treatment
b. Use subject’s representational mode of communication, if possible: visual, auditory, kinesthetic, olfactory, gustatory.

9. Anatomical interpretation is not exact and is the patient’s interpretation. Exact area should be explained and delineated.

a. “Glove anesthesia” may be interpreted by patient as being only superficial

10. Chief disadvantages of hypnosis is unpredictability of, and level of effectiveness.

a. Some pain may be alleviated with the first session. For most, relief may be attained after a few sessions.
b. Some subjects might notice immediate relief, others may find relief delayed by several hours.
c. As with other uses of hypnosis, don’t expect the same degree of results on every subject, or on each subject every time.
d. Best 10-15% of patients: effective for surgery and long term. 30-40% can do some minor surgery, etc. in moderate depth.

11. Once the cause of the subject’s pain is diagnosed an found to now be non-useful, it is important not to eliminate all pain, but to selectively attenuate only that non-useful pain, and advise the subject accordingly.

a. May be best to leave some “sensation” so that the patient won’t exacerbate the problem.
b. Time limit may be necessary with decreasing numbness, but retained analgesia if prolonged effect is desired; otherwise analgesia should be removed prior to realerting.

12. Induction/suggestions:

a. Authoritatian/direct suggestions work best with rapid induction and stroking of the affected area for acute pain.
b. Permissive/non-authoritarian suggestions with normal induction for reducing the anxiety accompanying the pain experience in less emergent situations.
13. Combination of hypnosis and anesthetics/analgesics (medium trance):
   a. Less anesthetics and/or analgesics needed
   b. Less effect on cough or gag reflex
   c. Placebo effect = 50% of time
   d. Good for poorer surgical risk patients, debilitated, geriatric
   e. Post hypnotic suggestion, autohypnosis, ego strengthening, glove anesthesia, etc., allow less opiates to be effective
   f. Antidepressant medication may be necessary if pain has been present for an extended time.

14. Disassociation of individual from his pain, and patient becomes and observer (moderate – deep) (Hilgard and Hilgard)
   a. Age regression or progression (not in terminal patients) to time when pain wasn’t or won’t be, present and how comfortable that time is, or will be.
   b. Subjective awareness is reduced

15. Perceptual distortion:
   a. Substituted to level which is tolerable and/or pressure, etc.
   b. Displacement to a more easily controlled part of body: transference to hand and evaporation
   c. Progressive diminution of pain: switches, volume control
   d. Sometimes a suggestion for hyperanesthesia may be necessary prior to analgesia/anesthesia so that the subject can make a comparison of the changed sensitivity

16. Expanding relief by distraction:
   a. Focus on those areas of the body which feel comfortable and visualize those areas of comfort expanding and relieving the uncomfortable areas and diluting the discomfort
   b. Good to combine with “progressive relaxation”

17. Time distortion:
   a. Mentally expand the time frames of relief from anesthetic/analgesia medications while compressing those uncomfortable time periods
   b. Similar to progressive relaxation

18. With extreme pain sometimes the best focal point is the pain itself: then vary its intensity
   a. Use creative visualization to form a mental image of the pain. Then incorporate deep, regular breathing with the imaging. The pain is diminished and blown out with each exhalation, and fresh healing air is brought in along with an alteration of the visualized image of the pain (diminution in size, or fading colors, etc)

19. “Autogenic training”: desensitization technique whereby the treatment procedure is previewed verbally while the patient is under hypnosis
   a. Faster healing, less pain post surgery
   b. Less chemo-analgesia/anesthesia required, fewer airway problems

20. Hypnosis for pain control is better reinforced when done in the morning
   a. Subject has time to “program” for the greatest duration of comfort with more anticipated distractions
b. Practice with “self-hypnosis” multiple times, during the day; also allows greatest reinforcement
21. Support the patient by telling them that you believe in their pain, its intensity, and will provide support
   a. Provide ego strengthening suggestions
22. Guide the subject to understand that they can control the level of the “pain” and that their control will increase with practice and understanding
   a. The process should be explained to improve expectancy and “roll playing”
23. Tape the sessions and suggestions for posthypnotic self-hypnosis to allow the subject “practice time” for self-analgesia, multiple reinforcement, etc.
Dental Hypnosis

I. TMJ

1. TMJ dysfunction/bruxism (clenching of jaw/grinding of teeth)
   a. Jaw pain
   b. Joint and muscle tenderness
   c. Teeth wear, cracks, breakage
   d. Joint dislocation/subluxation
   e. Joint sounds: popping, clicking
   f. Clenching and bruxism related headaches
   g. Callous formation on the lateral borders of tongue and cheeks
   h. Scalloping on lateral border of tongue

2. Objectives: reduction of the pain associated with TMJ dysfunction and bruxism through the use of hypnotic relaxation, autohypnosis, hypnotic analgesia, stress, relief, and ego strengthening:
   a. Increase general relaxation
   b. Reduce tension in the jaw muscles
   c. Sensitize patients to be aware of tension
   d. Stress management therapy: the habit may be an outlet for stress and if removed without a harmless alternative substitute, the subconscious may find a new outlet, i.e. ulcers, colitis, heart attack, etc.
   e. Creative visualization for healing and pain control

3. Hypnosis for stress management and habit reduction
   a. Days tension into fist and then evaporate
   b. Write down problems and file in 3x5 box, then discard at end of week
   c. Pressure dispersal: pressure near area of jaw with hands, then release of pressure. Analogize the release of pressure to the release of tension and pain in the jaw. Transfer clenching of the jaw to clenching of the fist... then release the tension
d. Suggestion: “Lips together, teeth apart.” Provide multiple imprinting of the previous phrase
e. Use the tongue as a spacer between the dental arches and to sense pressure changes

II. Tongue Thrust
1. Tongue thrust/reverse swallowing: during swallowing the tongue touches or presses against the upper front teeth and its movement is from posterior to anterior
   a. Caries
   b. Malocclusion
   c. Periodontal disease
   d. Speech difficulty
2. Normal swallowing: the tip of the tongue rests behind the upper anterior teeth with the dorsal of the tongue against the palate and the movement is from anterior to posterior about 1,500 times per day in three stages
   a. Willful: food to the back of the mouth
   b. Pharyngeal reflex
   c. Esophageal reflex
3. Treatment: a combination of myofunctional therapy and habit control with ego strengthening
4. Tests for a proper swallowing pattern:
   a. Place fingertips on masseter muscle lightly on each side of the face, just under the TMJ in front of the ear. The masseter muscle will bulge momentarily.
   b. Subject will notice a clicking sound as the Eustachian canals, from the back of the throat to the middle ears, open and close.

III. Appliance Adaptation
1. The inability of a patient to psychologically accommodate to a prosthetic appliance
2. Suggestions:
   a. Ego strengthening
   b. Creative visualization
   c. Body/self image
Dental Gagging

I. Gagging: Gut wrenching, wretched, retching
   1. Purpose
      a. To prevent foreign bodies from being inhaled into the lower airway.
      b. Gagging is a normal defense mechanism that protects the alimentary and respiratory tracts. The normal peristalsis of swallowing reverses in a spasmodic and uncoordinated fashion (Meeker and Magalee, 1986) but ineffectual attempt to vomit.
   2. Symptoms
      a. Extreme lacrimation, rhinorrhea
      b. Convulsive throat, abdomen
      c. Upper body and leg abduction
      d. Facial flushing
      e. Apnea
      f. Tachycardia
      g. Escape behavior
      h. Exhaustion
   3. Main trigger points in mouth for gag reflect are the fauces, uvula, and posterior pharyngeal wall (Conny and Tedesco, 1983).

II. Causes
   1. Neurogenic, physiologic, anatomic, iatrogenic, and metabolic
      a. Iatrogenic: impression material dripping down throat, hard to remove dental appliance (traumatic removal)
      b. Near drowning, near suffocation, rape with orogenital penetration
      c. Poor denture retention (especially maxillary), tissue coverage, occlusal errors of vertical and/or horizontal relationships, lack of space for tongue
2. Implant supported prosthesis can eliminate post insertion gagging problems

III. Patients
1. Most individuals who present for routine dental treatment with disruptive gagging are “mild retchers.”
2. Severe gaggers rarely present for routine dental treatment (Faigenblum).
3. Gagging is more prevalent in men than women (Wright, 1981)
4. Fear is almost always the underlying factor influencing the psychological gagger (Kramer and Brahan, 1977).
   a. Phobia is a severe psychological condition that dominates the patient’s rationality. There is a behavioral tendency by the patient for protection from the perceived threat.
   b. An avoidance or escape from the threat and an emotional reaction of intense anxiety
   c. Set of conditions, obsessions, and relationships resulting in constant vigilance
   d. Role of complex psychogenic or cognitive dental phobias (Krol, 1963; Clarke and Persichetti, 1988; et al) is great. Studies (Frankel and Orne; Gerschman, et al) indicate approximately a 50% chance that a phobic will be highly responsive to hypnotic (suggestive) intervention.
5. Gaggers may not be effective at oral hygiene and could be at a greater risk for dental problems.
6. Out of the most serious problems affecting the patient with an overactive gag reflex is a strong potential for compromised treatment (Conny and Tedesco, 1983).
7. In the dental environment, the patient may allow some procedures and be phobic of others but still perceive the dental experience as a threat.

IV. Treatment
1. Obtain a good history, especially concerning events which may have precipitated gagging episodes.
2. If a short procedure and a mild gag reflex, modifications to the procedure may suffice.
3. Gaggers characteristically swallow with their teeth clenched and can be taught to modify this behavior to swallow with the teeth apart, tongue placed on hard palate, and orbicularis oris muscle relaxed (Wilks, Marks, 1983)
4. Simple relaxation
5. Progressive relaxation, basic stress reduction techniques
6. Distraction, temporal tap, tapping cheeks, breathing similar to Lamaze style. Muscle stimulating activity, i.e. lifting leg, bending tongue blades (Landa ??, 1954). Biofeedback
7. Pharmacological sedation, nitrous oxide, topical and local anesthetics, table salt
   a. Pharmacological agents don’t address the underlying psychological problem (Muir and Calvert, 1988). Topical and local anesthetics are beneficial to the wild gagger (Conny and Tedesco, 1988).
8. Hypnosis
a. Waking suggestion (impressions: suggesting that something tasty is being placed in the mouth)
b. Giving authoritarian commands and directions (eye contact, role playing)
c. Imagery, i.e. breathing through an imaginary hole in neck or numb throat (Persichetti and Clarke, 1988)
d. Posthypnotic suggestions for increased comfort time on wearing dentures
e. Hypnosis treatment should be followed by ego-strengthening and self-image (magic mind mirror).

9. Progressive desensitization for behavior modification to develop a coping response (Morse et al., 1984; Zach, 1989)
   a. Hypnosis and systematic desensitization are the treatment of choice for phobic gaggers (McGuiness, 1984).
Anxiety and Children

I. Introduction
1. Two thousand years ago Seneca observed, “A child is not a small man.”
2. Children don’t respond well to intellectual abstractions, and exhibit a more unpredictable behavior.
3. Pain control in children involves the use of anesthetics, and the reduction of anxiety. A misinterpretation of pain with anxiety is common.

II. Anxiety Precursors
1. Uncontrolled
   a. Previous untoward experiences – dental or medical
   b. Peer preconditioning
   c. Parental preconditioning
   d. Misc. – movies, tv, etc.
2. Controlled
   a. Fear of the unknown
   b. Office ambiance – children’s books, pictures – peaceful
   c. Staff/doctor attitude
   d. Parental attitude and support – parents with children
   e. Establishment of rapport and trust
   f. Misc. – short “child oriented” initial appointments

III. Situational Priorities
1. Acute emergency – scared vs. spoiled/showing off
2. Long term treatment
IV. Current Practice
1. Physical restraint by staff
   a. Hand over mouth
   b. Towel technique
   c. Papoose boards, pedi-wraps
   d. Mouth props
2. Sedation
   a. Better circulation – medications take effect faster and more profoundly, but are of shorter duration
   b. Dosage reliant
3. General anesthesia
   a. Smaller body weight – greater chance for toxicity, etc.
4. Tell/Show/Do – dialogue at child’s level
   a. Positive reinforcement with friendliness
5. Hypnosis

V. Adolescent Hypnosis
1. Behavior control – the professional has the responsibility for behavior management
2. Relaxation
3. Fear elimination – future expectations are built upon past experiences; perceptual confusion (apples vs. oranges)
4. Quelling undesirable habits
5. Amnesia – better than adults (73% to 80%) with hypnosis; London, Cooper, Hilgard, Barber
6. Analgesia
7. Prevention of gagging and nausea
8. Control of saliva and bleeding

VI. Background
1. Children are susceptible to hypnosis
2. More susceptible than adults
   a. Hilgard, 1968
3. Children reach susceptibility apex at about age nine
4. Between the ages of six and nine there is a steady gain in susceptibility
   a. Barber, 1969
5. After age nine, there is a gradual decline until about age fifteen through the early twenties, then a leveling off with normal adult susceptibility
6. The individual is more susceptible to hypnosis in mid-childhood than at any other time in their life
   a. London and Cooper, 1969
7. “A child’s wakeful state seems less removed from the hypnotic state than an adult’s. Other individuals seem to counteract imaginative involvement with the demands of reality.” Gardner, 1974
8. The basic determining factors of a child’s hypnotic susceptibility have to do with the nature of their “child-adult experiences” Estabrook, 1962
   a. Love and trust between parent and child
   b. Discipline techniques emphasizing firmness, consistency, and love orientation
   c. Presence of sibling relationships – an only child is less susceptible
   d. Participating responsibilities
   e. Adult encouragement of imagination and play

VII. Hypnotic Techniques
1. Secure the child’s attention
   a. Entry into the child’s world must be at their level
   b. More fantasy and imagination
   c. Allow for a shorter attention span
2. Formal induction (20 min)
   a. Somnambulistic suggestion, tv, story
3. Waking suggestion and semantics (30 sec.)
   a. Constant monologue with proper word choice
   b. Voice control – softer, quieter
   c. Body language – smooth, gentle, slow movements
   d. Metronomic cadence to carotid pulse – tympanic membrane artery
   e. N.L.P (neurolinguistics programming) – breathing and set-up of trigger point relaxation
4. Distraction and sensory confusion – taste of anesthetic vs. ice cream, rewards (toys), glove balloons, needleless syringes
5. Concurrent use of nitrous oxide, etc.
   a. Produces an altered state of consciousness similar to hypnosis; Barber et al., 1979
   b. Facilitates and deepens normal and resistant subject induction; Bleadon and Sugarman, 1968; Smith, 1977; Langa, 1968

VIII. In closing
1. Purposefully, no recipe was given for hypnotic induction. The technique must vary dependent on the professional, subject, situation, and objective
2. Learn subliminal behavior modification for patient management and stress reduction
### Dental Concerns Assessment (Part I)

Please rate your concerns or anxiety over the dental procedures listed below by ranking them on the accompanying scale. Please fill in any additional concerns.

<table>
<thead>
<tr>
<th>Procedure</th>
<th>None</th>
<th>Low</th>
<th>Medium</th>
<th>High</th>
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</thead>
<tbody>
<tr>
<td>1. Not enough information about procedures</td>
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<td>1</td>
<td>2</td>
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<td>2. Not feeling free to ask questions</td>
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<td>3. Not being listened to or taken seriously</td>
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<td>4. Being criticized or put down</td>
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<td>5. Not being able to relax in the dental chair</td>
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<td>6. Not being able to stop the dentist</td>
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<td>7. Fear of being injured</td>
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<td>8. Existing medical condition complication</td>
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<td>9. Panic attacks</td>
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<td>10. Jaw gets tired</td>
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<td>11. “Grit” during cleaning of teeth</td>
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<td>12. Scraping during cleaning of teeth</td>
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<td>13. Bright light</td>
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<td>14. X-rays</td>
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<td>15. Impressions of the mouth</td>
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<td>16. Gagging</td>
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<td>17. Injection</td>
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<td>18. Not being numb enough</td>
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<td>19. Dislike the numb feeling</td>
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<td>20. Sound of the drill</td>
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<td>21. Vibrations of the drill</td>
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<td>22. Smells (specify)</td>
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<td>23. Root canal treatment</td>
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<td>24. Surgery</td>
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<td>25. Infection</td>
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<td>26. Sterilization Procedures</td>
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<td>27. Other</td>
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<tr>
<td>28. Other</td>
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Dental concerns assessment (Part II) – Relaxation Aids

Please review this list of aids and indicate the ones you might like to use.

1. □ Being able to communicate with the dentist
2. □ Headphones and music
3. □ Television
4. □ Nitrous oxide (happy/laughing gas)
5. □ Relaxation techniques/hypnosis
6. □ “Needless” injections
7. □ Personal disposable “OralSafe” handpiece
8. □ “Waterlase” laser (no shot, vibration, drill noise)
9. □ Mouth prop
10. □ Being able to control the saliva ejector
11. □ Mirror to watch care
12. □ Taking off shoes
13. □ Lip balm
14. □ Blanket
15. □ Neck pillow
16. □ Other: __________________________
17. Suggestions: