

HYPNOSIS WITH A BLIND 55-YEAR-OLD FEMALE WITH DENTAL PHOBIA REQUIRING PERIODONTAL TREATMENT AND EXTRACTION

Michael A. Gow

In private dental practice

Abstract

Presenting problem: Jo is a 55-year-old female who has a phobia of dental treatment. She has been completely blind since birth and requires periodontal treatment and subsequent extraction.

Aim: Treat Jo's periodontal condition and decrease her phobia and fear of treatment by using hypnosis as an adjunct to basic anxiety management techniques.

Methods: In surgery, medical, dental and phobia history explored. Pre-treatment questionnaires assessed dental anxiety, reasons for anxiety, and ascertained management options. Post-treatment questionnaires assessed changes in dental anxiety and attitudes. Anxiety management techniques included Tell/Show/Do and hypnosis.

Results: Pre-treatment questionnaire revealed high level anxiety and anticipation of pain during future dental treatment. Following hypnotic intervention facilitating periodontal intervention and subsequent extraction, repeated questionnaires revealed significant reduction in anxiety and anticipation of pain.

Conclusion: Hypnosis seems to have been successful as an adjunct in achieving the initial aim. Copyright © 2006 British Society of Experimental & Clinical Hypnosis. Published by John Wiley & Sons, Ltd.

Key words: Creative Imagination Scale, dental anxiety management, dental hypnosis, dental phobia, hypnosis with the blind

Description of the problem

Jo attended the dental surgery for a routine examination, which revealed chronic adult periodontitis (Chestnutt and Gibson, 1998: 38). She therefore required periodontal treatment involving a scale and polish. However, Jo described that she disliked this procedure to the extent that the thought of it provoked anxiety. Further investigation revealed that Jo in fact had a dental phobia, which had developed over many years. Jo admitted to cancelling appointments on occasions due to her fear. She felt that her phobia affected her being able to have the dental treatment she required and that it had caused her distress over the years.

Relevant personal details

Jo is a 55-year-old divorced female, living in Scotland, and has been completely blind since birth. She has a son and daughter and has smoked 10 cigarettes per day for 24 years (12 pack years). Jo does not work due to her disability.

Details of formal assessment

Assessment of periodontal condition

During intra-oral examination, Community Periodontal Index of Treatment Needs (CPITN; see Figure 1) allowed diagnosis of chronic adult periodontitis (Mitchell and Mitchell, 1996: 210)

Assessment of dental anxiety

Jo scored 20/20 in a Corah Dental Anxiety Score (Corah et al., 1969) and 29/30 in a Modified Corah Dental Anxiety Score (Gall, 1998).

Assessment of pain during dental treatment

Using Visual Analogue Scales (VAS; Kent and Blinkhorn, 1992: 104–5; Scott and Huskisson, 1976: 175–84), Jo scored pain experienced during previous treatment as 9/10 and pain anticipated for future treatment as 8/10, where 10 indicated ‘the most pain you can imagine’. Kent (1997) discussed that anticipation or anxiety may actually lead to an increased perception of pain, while pain may lead to an increased experience of anxiety.

Assessment of hypnotic susceptibility

Hypnotic susceptibility was assessed using the Creative Imagination Scale (CIS; Barber and Wilson, 1978; see also Davies, 1990). Jo was to interpret visual items in any way she chose or to simply ignore them (e.g. the yellow pencil in item 9 of the scale). A low CIS of 13 was recorded. Sinson 1991 showed that blind subjects in fact tended to score higher with the CIS than sighted subjects (however, did not specify if subjects had been blind since birth or had become blind later in life). Amongst other findings, Sinson (1991) found that blind subject responded better to item 2 (hand levitation) compared to sighted subjects. Interestingly Jo’s arm levitated during this item, yet she assessed the experience as a score of 1 out of 4 as ‘it felt like it was happening by itself, and not as if it was actually being pushed up by water’. This was also noted in item 1 (arm heaviness) as Jo’s arm in fact seemed to be lowering with the increased suggestions of heaviness, yet she again scored the item as 1. She felt as if she had ‘no control over what was happening’, however it ‘did not actually feel as if dictionaries were being placed’ on her hand. It is likely that the CIS in this case may not be indicative of Jo’s true hypnotic susceptibility. This may partly be due to the ambiguity of the CIS, but is also due to Jo’s interpretation of the experience and the scoring system for CIS. Jo’s score suggests that she has a low susceptibility to hypnosis; however, it is likely that her true ‘hypnotizability’ is more likely to be average. Sinson (1991) discussed problems with the CIS stating that subjects can be easily persuaded to change their scores of 1, 2 or 3, with scores of 0 and 4 often representing simple positive and negative responses.

2	2	3
2	2	2

Figure 1. CPITN.

Formulation

Diagnosis of dental phobia may be made as Jo has high Corah (Corah et al., 1969) and Modified Corah (Gall, 1998) Dental Anxiety Scores combined with a history of avoiding dental appointments (Kent and Blinkhorn, 1992: 104–5; Gow, 2002; Gow, 2003). Visually impaired patients may find the dental situation more intimidating than sighted patients as unlike sighted patients, they may not have the opportunity to be as prepared for what is going to happen next. The technique of Tell/Show/Do (Locker, 1989: 155–7) will therefore be implemented in this case, and is described later.

Jo measured her experience and anticipation of pain on Visual Analogue Scales (VAS).

Jo also indicated that she felt she has a low tolerance to discomfort or pain and that she has a son and a daughter who are both anxious of dental treatment. Shaw (1975) found that mothers of anxious children were themselves more anxious and more likely to comment on previous distressing experiences.

Jo reported other fears as cats and wasps. De Silva (1988) suggested that several fears may indicate an innate predisposition or preparedness to anxiety.

Jo reported that she worries that the dentist will carry out a procedure when the tooth is not ‘numb’. This reiterates her fear of pain, however, it also highlights that she does not trust dentists, especially as she has had previous painful dental experiences. The importance of trust and other dentist–patient relationship interactions are discussed by Kroeger (1988) and Freeman (2000). Jo has had previous dental experiences which have been painful and believes that these have also contributed to her phobia. Bernstein et al. (1979) recognized painful or unpleasant previous experience as a major cause of dental phobia. Jo’s phobia may be the result of learned association between pain and dental treatment (Lautch, 1971). Multiple exposures to traumatic experiences may be needed for the development of a phobia. This ‘Pavlovian conditioning’ is widely accepted as a significant cause of phobia (Watson and Raynor, 1920; Lautch, 1971; Hugdhal and Ost, 1985; Ost, 1987; ter Horst and De Wit, 1993; Moore, Kirkegaard, Brodsgaard and Scheutz, 1993).

Jo had no previous experience with hypnosis; however she believed that it might help her overcome her feelings. Evans (1991) suggested that people with phobias may respond particularly well to hypnosis.

Description of treatment

Session 1

A useful technique described by Graham (1987) is to ask the patient, on the first visit, what their friends call them. The operator then asks permission to call them by this name, effectively asking if they can be their friend. This helps to begin building rapport and trust.

Following full medical and dental history, intra-oral examination revealed periodontal disease. Jo indicated she was a ‘very nervous patient’ and an anxiety questionnaire was completed. Rapport was built by taking time to talk with Jo.

Session 2

Jo returned for further discussion one week later. She indicated that she was interested in hypnosis. Hypnosis was discussed and Jo’s myths and misconceptions were corrected. Jo was given my website address, www.whatfear.com (she owns a ‘talking computer’), which contains information regarding dental hypnosis and attempts to discuss some

common anxieties and concerns. A letter was sent to Jo's GMP (General Medical Practitioner) regarding the intention for hypnotic intervention. This allows an opportunity for relevant information to be offered by the GMP.

Session 3

Jo's GMP had contacted the dental surgery prior to this session by telephone indicating that there were no contra-indications for a hypnotic intervention.

A Creative Imagination Scale (Barber and Wilson, 1978) of 13 was recorded and Jo's experiences discussed.

At this visit Jo was to experience a basic hypnotic trance in order that she would be familiar with the procedure before treatment was to be carried out. Jo stated that she would be more comfortable to close her eyes during the session.

Trance was induced by a full and vivid description of all five senses (hearing, touch, smell, taste and sight; see Carroll-Clark, 1972; Cohen, 1976; McCord, 1962). The physiology of each sense (Vander, Sherman and Luciano, 1994) was described in detail in understandable language. Jo stated that she believed that the strongest of her four senses were hearing and touch. She described being 'very interested' to hear about the five senses as much of the information was new to her. Trance was deepened by asking Jo to imagine activating her four senses of hearing, touch, smell and taste to fully absorb herself in a special place (Walters, 2002). Jo chose her special place to be an imagined garden. Visual suggestions were avoided, however, Jo was informed that if at any time any reference was made to visual stimuli (perhaps inadvertently) she should interpret it however she chose or ignore it. She could imagine hearing birds and the wind. She was able to determine that she was walking on a concrete path by noticing how it felt beneath her feet and by the noise of her own and her guide dog's feet as they walked through the garden. Jo could imagine smelling and feeling the petals of freesia flowers. Jo described the most vivid and realistic experience as when she imagined stroking the soft coat of her guide dog.

Ego strengthening technique was carried out by repeating a mantra of 'calm, control and confident' (Gall, Patterson and Walker, 2001).

Jo was returned to her special place and posthypnotic suggestions were given (e.g. 'Next time, when you come back to have the scale and polish, you will become more and more relaxed, more and more quickly').

Safeguards were placed before trance was terminated by reverse counting from 7 to 1.

Jo was taught self-hypnosis techniques and instructed to use them at least once every day (Heap and Aravind, 2002: 101–5, 303)

During debriefing Jo found it difficult to describe her experience. She stated that it was pleasant, however, although she could imagine what it would be like to hear and feel each suggestion, she did not feel as if she was actually experiencing them. It was emphasized that this was perfectly normal and adequate and that it was not expected that the hypnotic experience would exactly replicate a real experience. She described that the tactile suggestion of stroking her dog was the most realistic. Jo described feeling that her neck was uncomfortable during the session and it was agreed that she would bring a cushion with her for future visits 'in order that she may be even more relaxed and comfortable'. Using the principles of Tell/Show/Do, the instruments which would be used at the next appointment to scale and polish her teeth were described. In the 'Tell' phase a full explanation of what would happen was given in a matter of fact style. In the 'Show' phase, Jo held any instrument to be used, and a brief demonstration was given of how it

is used. Jo indicated in the initial questionnaire that she worries about treatment because she is unsure about what is involved and that it may be painful. When Jo was given the instruments to hold, she described that no dentist had ever let her hold and feel the instruments before using them. She seemed very pleased that she had had the opportunity to 'see' them for herself. Note, however, that the procedure should not be carried out ('Do' phase) until the patient fully understands what will happen and is happy to proceed.

Session 4 (Treatment 1)

Jo returned one week later for her scale and polish. She was reminded that she had the control to stop the dental procedure at any time for any reason by raising her hand. Again using Tell/Show/Do, Jo was allowed to hold and feel the instruments that would be used at this appointment.

Hypnosis was induced by asking Jo to close her eyes and find herself back in her special place at the count of 1 to 7. She was asked to remember everything that she had imagined hearing, feeling and smelling the last time she had been in her special place. Trance was deepened by increasing absorption in the special place. As Jo had stated that she had found descriptions of stroking her guide dog to be the most vivid, more time was spent suggesting that 'as she stroked the dog's warm, soft coat, she could become more and more relaxed'.

As Jo had experienced arm levitation and heaviness during the CIS, trance was ratified by using the 'hands coming together technique' (Gall et al., 2001). This proved to be very effective, and Jo smiled as her hands drew closer and finally came together. Jo remained relaxed in her special place, while her teeth were scaled and polished. Post-hypnotic suggestions were made as follows: 'as your teeth and gums are becoming more and more healthy and clean, you can become more and more relaxed about future dental treatment; able to return to your special place quickly and easily; able to use self-hypnosis as and when it is appropriate to do so'. Jo was able to anchor her relaxation by touching her index finger and thumb together (Gall et al., 2001) and was given the posthypnotic suggestion that she could use this anchor at any time to aid in her relaxation. Trance was terminated by reverse counting from 7 to 1.

Jo reported a positive experience during debriefing. She admitted that she continued to find experiencing the special place difficult, however found the 'hands coming together' technique very effective, stating 'It was amazing, it just seemed to happen and I felt as if I had no control over it!'

Jo completed a post-treatment questionnaire, which indicated a reduction in Corah and Modified Corah scores, and in her anticipation of pain of future dental treatment. An appointment was made for three months time for review, and continued periodontal treatment.

Session 5 (Treatment 2)

Jo returned two months later and requested for hypnosis to be used again to assist relaxation while she had her teeth scaled and polished. She reported that she was 'still jittery about the procedure, but not at much as before using hypnosis'.

A repeated CPITN revealed some improvement in her periodontal condition.

Using the principles of Tell/Show/Do, Jo was reminded of exactly what would happen and what instruments would be used. An increase in relaxation was facilitated by using an arm relaxation technique (Auld, 2003).

As Jo had very positive experiences with ideomotor suggestions previously, hypnosis was successfully induced using arm levitation. Confusion techniques were used to

deepen trance during arm levitation. By referring to her arm as *the* arm, dissociation was assisted and successful levitation facilitated (Auld, 2003).

Using the concept of binds and double binds (Erickson and Rossi, 1979) Jo was given the 'choice' of either returning to her special place to become more relaxed, or to let her increasing relaxation take her to 'a new special place'. Trance was deepened further by continuing suggestions for arm levitation.

Ego strengthening by repeating a mantra of 'calm, control and confident' (Gall et al., 2001) was used. Topical anaesthetic gel was rubbed on Jo's mucosa and gingivae to reduce any potential pain she may experience during the dental procedure. As arm levitation was terminated, and all feelings returned to normal, it was suggested that she could become fully and completely relaxed. Midway through the dental procedure time was taken to demonstrate the Calvert Stein Clenched Fist Technique (Heap and Aravind, 2002: 137; Stein, 1967) using Jo's other hand. This successfully assisted Jo's relaxation and the scaling and polishing were completed.

All altered sensations were reversed by telling Jo to allow everything to return to normal and Jo was praised as to how well she had done. As Jo sat forward at this point to rinse her mouth, and began conversing normally, no formal trance termination was required.

During debriefing, Jo explained that she had found the arm levitation to be very effective and was very pleased with how the session had gone. Jo completed a second post-treatment questionnaire, which revealed further reduction in her Corah and Modified Corah scores and anticipation of pain of future dental treatment.

Session 6

Jo returned three months later with pain from a periodontal abscess related to tooth 26. Pain and infection control using antibiotics (Amoxicillin 500 mg to be taken every eight hours for five days (British National Formulary (BNF) (2006) Section 5.1.1.3)) and Ibuprofen 400 mg to be taken up to a maximum of four times a day (BNF Section 10.1.1) was provided. An appointment was made for one week later for extraction.

Session 7 (Treatment 3)

Hypnotic induction was by arm levitation with progressive muscular relaxation. Ego strengthening was given as detailed previously. The upper left first molar (26) was extracted following local anaesthesia. During the infiltration of the local anaesthetic solution, the following verbalisation (*'Rubbing it better'*) was used. It is based on the 'Gate Control Theory of Pain' (Melzack & Wall 1965) and may also be of benefit by providing distraction. The 'Gate Control Theory of Pain' proposes that the stimulation of larger diameter fibres (e.g. using appropriate pressure or vibration) can close the neural 'gate' so that the central perception of pain is reduced. The verbalisation is given that *'Everyone has two different types of nerves. One type transmits pain and the other transmits movement and pressure.'* During the verbalisation, using a finger, the operator should apply continued pressure with small circular movements on the mucosa near the proposed injection site. Other techniques include placing an electric toothbrush on the tooth adjacent to the injection site. The verbalisation continues; *'It is an interesting fact that the nerves which transmit movement and pressure actually block some of the transmission of pain from the other nerves. When some part of you is experiencing pain, everyone has heard of and experienced "rubbing it better".'* The pressure and movement should continue during the initial puncture and administration of local anaesthetic. *'In fact I bet that when you were younger, if you ever fell and hurt your knee; someone,*

perhaps your mum or dad, would rub it better. So I'll keep rubbing here, and you will be surprised by how much more comfortable things can be than you had expected.' The finger pressure and movement with verbalisation should continue for as long as is necessary during the anaesthetic delivery. Note, for a dental needle desensitisation protocol see Gow 2006.

Posthypnotic suggestions were given that 'You will be surprised by how quickly the socket will heal and that it will heal with little discomfort or pain' and trance was terminated. Post-treatment anxiety questionnaire 3 was completed which revealed a maintained reduction in anxiety and anticipation of pain from future dental appointments.

During a follow-up telephone call three days later, Jo stated: 'I am surprised by how quickly it is healing and there has been no discomfort or pain'.

Current status of treatment including patient's report

Assessment of periodontal condition

A CPITN score recorded recently, indicates that Jo's periodontal condition has shown some improvement (see Figure 2).

Jo attends regularly (every three months) for periodontal treatment. She continues to smoke but is considering stopping. She appreciates that her smoking is detrimental to both her general and oral health and is certainly contributing to her periodontal condition (Craig and Johnson, 1998; Johnson and Bain, 2000).

Questionnaire results for Corah, modified Corah and VAS of anticipated pain of future dental procedures show significant reduction from scores indicating high anxiety or phobia to scores indicating little or no anxiety of dental treatment (see Table 1).

Conclusions

This case provided an interesting opportunity for me to use hypnosis with a patient who has never had vision. This challenged my skills and taught me the importance that each

1	2	2
1	2	2

Figure 2. CPITN.

Table 1. Questionnaire results for Corah, modified Corah and VAS of anticipated pain of future dental procedures

	Corah	Modified Corah	VAS of anticipated pain
Pre-treatment	20/20	29/30	8/10
Post-treatment 1	15/20	22/30	5/10
Post-treatment 2	10/20	15/30	3/10
Post-treatment 3	10/20	14/30	3/10

of the senses has in providing a detailed assessment of our environment. There seems to be little in the way of research in hypnosis with the blind (however, see Carroll-Clark, 1972; Cohen, 1976; and McCord, 1962). Future research would be beneficial in the understanding of hypnosis with the blind, and indeed of hypnosis itself.

The case highlighted the importance of being able to utilize a patient's preferred sense(s) for absorption in the special place, even if they have full function of all five senses. This case also highlighted problems with the interpretation of the CIS, as although Jo scored the ideo-motor items low, such suggestions ended up causing the greatest hypnotic phenomena.

In this case hypnosis as an adjunct with basic anxiety management techniques helped the patient increase relaxation during dental appointments, and decrease fear of dental treatment and anticipation of pain.

References

- Auld JM (2003) (Unpublished) Workshop: indirect techniques for pain and stress management. University College London, Hypnosis Unit, Remax House, Gower St. London. W1E 6BT, 20 May.
- Barber TX, Wilson SC (1978) The Barber Suggestibility Scale and the Creative Imagination Scale: experimental and clinical applications. *American Journal of Clinical Hypnosis* 21: 84–108.
- Bernstein DA, Kleinknecht RA, Alexander LD (1979) Antecedents of dental fear. *Journal of Public Health Dentistry* 39: 113–24.
- British National Formulary (2006) Edition 51. London: BMJ Publishing Group Ltd. & RPS Publishing.
- Carroll-Clark EH (1972) Induction technique used on a deaf and dumb and a blind patient. *British Journal of Clinical Hypnosis* 3(1–2).
- Chestnutt IG, Gibson J (1998) *Churchill's Pocketbook of Clinical Dentistry*. Oxford: Churchill Livingstone.
- Cohen SB (1976) Hypnosis and perceptually handicapped [Editorial]. *American Journal of Clinical Hypnosis* 19: 73.
- Corah NL, Gale EN, Illig SJ, (1969) Development of a Dental Anxiety Scale. *Journal of the American Dental Association*, 48: 596.
- Craig G, Johnson N (1998) Oral cancer: guidelines for early detection (BDA Occasional Paper). Issue No.5, May.
- Davies P (1990) The Creative Imagination Scale: the responses of blind and sighted subjects. Paper presented at the Annual Conference of the British Society of Experimental and Clinical Hypnosis, March.
- de Silva P, (1988) Phobias and preparedness: replication and extension. *Behaviour Research and Therapy* 26: 97–8.
- Erickson MH & Rossi EL (1979) *Hypnotherapy: An Exploratory Casebook*. New York: Irvington.
- Evans FJ (1991) Hypnotisability: individual differences in dissociation and the flexible control of physiological processes. In: SJ Lynn, JW Rhue (eds) *Theories of Hypnosis: Current Models and Perspectives*. New York: Guilford Press.
- Freeman R (2000) *The Psychology of Dental Patient Care*. British Dental Association.
- Gall J (1998) Personal Communication, April 1998.
- Gall J, Patterson F, Walker A (2001) Hypnosis in dentistry: Section 63 Postgraduate Dental Course. Blaydon upon Tyne: West of Scotland Centre for Post Graduate Dental Education, Sauchiehall Street, Glasgow, 22/02/01.
- Gow MA (2002) Treating dental needle phobia using hypnosis. *Australian Journal of Clinical and Experimental Hypnosis* 30(2): 198–202.

- Gow MA (2003) Management of dental needle phobia using hypnosis, relaxation and desensitisation techniques: a clinical case report. *The Society for the Advancement of Anaesthesia in Dentistry (SAAD) Digest* 20(2): 14.
- Gow MA (2006) Hypnosis with a 31-year-old female with dental phobia requiring an emergency extraction. *Contemporary Hypnosis* 23(2): 83–91.
- Graham G (1987) *It's a Bit of a Mouthful*. Real Options Press.
- Heap M, Aravind K (2002) *Hartland's Medical and Dental Hypnosis*, 4th edn. London: Churchill Livingstone.
- Hugdhal K, Ost L (1985) Subjectively rated physiological and cognitive symptoms in six different clinical phobias. *Personality and Individual Differences* 6: 175–88.
- Johnson NW, Bain CA (2000) Tobacco and oral disease. EU working group on tobacco and oral health. *British Dental Journal* 189: 200–6.
- Kent G (1997) Dental Phobias. In: GCL Davey GCL (ed.) *Phobias: A Handbook of Theory, Research and Treatment*. Chichester: John Wiley & Sons, pp. 107–127.
- Kent G, Blinkhorn A (1992) *The Psychology of Dental Care*, 2nd edn. Oxford: Wright.
- Kroeger R (1988) *How to Overcome Fear of Dentistry*. Cincinnati, OH: Heritage Communications.
- Lautch H (1971) Dental phobia. *British Journal of Psychiatry* 119: 151–8.
- Locker D (1989) *Behavioural Science and Dentistry*. London: Tavistock/Routledge.
- McCord H (1962) Special considerations for use in working hypnotically with the blind and partially-sighted. *British Journal of Medical Hypnotism* 13(4): 31–4.
- Melzack R, Wall P (1965). Pain mechanisms: a new theory. *Science* 50: 971–79.
- Mitchell DA, Mitchell L (1996) *Oxford Handbook of Clinical Dentistry*, 2nd edn. Oxford: Oxford University Press.
- Moore R, Kirkegaard E, Brodsgaard I, Scheutz F (1993) Prevalence and characteristics of dental anxiety in Danish adults. *Community Dentistry and Oral Epidemiology* 22: 258–62.
- Ost L (1987) Age of onset in different phobias. *Journal of Abnormal Psychology* 96: 223–9.
- Scott PJ, Huskisson EC (1976) Graphic representation of pain. *Pain* 2(2): 178–84.
- Shaw O (1975) Dental anxiety in children. *British Dental Journal* 139: 134–9.
- Sinson JC (1991) Hypnotic susceptibility of the blind. *Contemporary Hypnosis* 8(2): 113–18.
- Stein C (1967) Clenched fist as a hypnobehavioural procedure. *American Journal of Clinical Hypnosis* 2: 113–19.
- ter Horst G, De Wit C (1993) Review of behavioural research in dentistry, 1987–1992: dental anxiety, dentist-patient relationship, compliance and dental attendance. *International Dental Journal* 43: 265–78.
- Vander A, Sherman J, Luciano D (1994) *Human Physiology*, 6th edn. Maidenhead: McGraw-Hill.
- Walters V (2002) Personal communication. Lecture for diploma in hypnosis applied to dentistry, UCL; preparation of the client: eliciting the 'relaxing place', 29 September.
- Watson JB, Raynor R (1920) Conditioned emotional reactions. *Journal of Experimental Psychology* 3: 1–14.

Address for Correspondence:

Michael A. Gow

Tigh A Gobha

8 Galston Place

Southcraigs

Kilmarnock

KA3 6FT

Email: phoenixhypnotherapy@hotmail.com