

HYPNOSIS AS AN ADJUNCT TO HABIT REVERSAL IN THE TREATMENT OF CHRONIC FACIAL MOTOR TICS

Trevor G. Mazzucchelli
Psychologist

This case study describes the treatment of a 52-year-old woman for two facial motor tics. Treatment was centred around “habit reversal,” a behavioural approach which is supported by the bulk of psychotherapy outcome research. Hypnosis was included as part of the treatment plan because the client had expectations for a positive therapeutic outcome from this technique and it was felt that it might enhance various components of the habit reversal package. After two sessions the client reported a significant reduction in the frequency of tics. Issues associated with the intervention are discussed.

The client, Peta, was a 52-year-old woman referred by her general practitioner for treatment by hypnosis of two motor tics. One tic involved the tensing of muscles in the front and back of the neck. The second combined the wrinkling of the nose, the raising of the upper lip, squinting of the eyes, and wrinkling of the forehead.

Peta reported that she had had nervous habits as a child which came and went, but that they seemed to disappear after puberty. She stated, however, that she continued to be a nervous and fidgety person.

When she was 35 she experienced a “mid-life crisis.” Peta reported that this was a very stressful time because her husband was overseas and she was preparing to move to the United States. She experienced panic attacks and was hospitalised. Ever since this time she has been managed on antidepressant medication.

I thank Sandra Boughton for her encouragement in the preparation of this manuscript. The case study was prepared as part examination for full membership of the Australian Society of Hypnosis.

Requests for reprints should be sent to Trevor G. Mazzucchelli, Clinical and Applied Psychological

Peta began to re-experience tics when she was 43. She found that they would come and go for months at a time and it was difficult to predict what would bring them on. For example, when her brother died in England she thought that she would have a particularly bad bout because this was a high-stress time. Instead she remained relatively tic free. In contrast, when a friend's son died, she experienced a severe bout of tics.

Peta described a recent occasion when she experienced a particularly bad bout of tics. She was at work, driving residents of an intellectually disabled group home on an outing. She stated that she became very stressed because she was lost, it was dark, and she was encountering kangaroos on the road. While driving she first noticed her neck tic, but then noticed that both tics were occurring with great frequency. When she got home and calmed down she reported that her face tics decreased in frequency, but her neck kept "firing."

Peta noticed that her tics worsened in the evenings when she was tired, but that she did not seem to have any control over them. She dreaded social situations and was hesitant to accept invitations to social activities. She reported that the tics sapped her confidence and made her feel depressed. She further reported that she found it very embarrassing to discuss her tics, even to her husband to whom she had been married for 30 years and who was very supportive. Peta stated that she had two sons who also had tics.

Despite her history, at her intake session, Peta scored in the minimal range for depression on the Beck Depression Inventory and at the 54th and 52nd percentile for state and trait anxiety respectively on the State-Trait Anxiety Inventory.

During the session many tics of both variety were observed.

TREATMENT FOR MOTOR TICS

Peta reported some reservations of psychologists, stating that she had had contact with several through her work with adults with intellectual disability. She found that their advice in relation to behavioural interventions was often unrealistic and unhelpful. These negative impressions may have led her to seek hypnotherapy in preference to a behaviour-based intervention.

Self-hypnosis has been successfully employed to reduce the nature and frequency of tics, particularly in children with Tourette syndrome (e.g., Kohen, 1995; Kohen & Botts, 1987). However, the weight of the evidence in psychotherapy outcome research indicates the behavioural intervention "habit

reversal” and in particular the awareness training and competing response training components of the habit reversal package (Miltenberger, Fuqua, & Woods, 1998). Using such components, dramatic reductions in muscle tics have been reported in just one or two treatment sessions (e.g., Azrin & Nunn, 1973; Azrin, Nunn, & Frantz, 1980; Finney, Rapoff, Hall, & Christophersen, 1983; Miltenberger & Fuqua, 1985).

Hypnosis was included as part of the treatment plan because, although having not previously experienced hypnosis, Peta had expectations for a positive therapeutic outcome from this therapeutic approach. Such expectancy is often predictive of improvement in treatment (Kirsch, 1990). Given the strong support for behavioural intervention, however, it was decided to combine hypnosis with behavioural methods, an approach which has support in the literature (Schoenberger, 2000; Young, 1991). Indeed, it was felt that hypnosis might enhance the effectiveness of the awareness training, relaxation, and motivation components of the habit reversal package.

Peta did not present with any symptoms of psychosis, did not take any medication that would impinge on or act as a contraindication for hypnosis, nor did she have severe depression with suicidal ideation.

TREATMENT PLAN

The agreed aims of therapy were to reduce her motor tics, increase Peta’s capacity to relax and increase her social activity. These goals were to be accomplished through habit reversal strategies and through hypnosis.

Session 1

The aims of the initial session were to complete an assessment and commence intervention. Much of the assessment information outlined above was obtained during the first part of this session. The habit reversal components and hypnosis procedure covered in the second part of the session are outlined below.

Awareness training and self-monitoring The initial procedure focused on increasing Peta’s awareness of the frequency and severity of the tics, and the specific movements involved in the tics. Although reluctant to do so, Peta was then asked to describe the details of each tic using a mirror. The rationale for this response description procedure was that being able to effectively control tic symptoms requires individuals to be keenly aware of all tic movements.

It became apparent that Peta was often unaware when she exhibited a tic. Consequently she was alerted to each instance of a tic to give her practice in detecting their occurrence and increase her awareness of the earliest signs or sensory preconditions of a tic.

Competing response training In this stage of the session, Peta practised using the competing response (incompatible behaviour) for 1–3 minutes contingent on the occurrence of the habit or awareness that the habit was about to occur. For Peta the competing responses used were as follows:

- *Neck:* Isometric contraction of the neck flexors, pulling the chin slightly down and in, and maintaining the head in an eyes forward position.
- *Nose, lip and forehead:* Pull upper lip down slightly, pressing lips together and raising eyebrows.

Explanation of hypnosis Peta and I collaboratively discussed how self-hypnosis could facilitate the achievement of our therapeutic goals by:

- Assisting her to be more relaxed in situations where she was likely to experience a greater frequency of tics;
- Assisting her to become more aware of the first signs that a tic might occur;
- Strengthening her motivation to perform the required treatment procedures; and
- Reducing the frequency and severity of tics directly.

A careful explanation of hypnosis was undertaken. Trance was described as a state between fully awake and fully asleep, a “normal” state of focused attention, where one is calm and paying attention to what the practitioner is saying, rather than to their own thoughts or things around them. It was further explained that, when in trance, the conscious or critical mind is relaxed, so that the subconscious mind can be accessed more directly. Peta was told that hypnosis involves the willingness to imagine what is suggested and to be open to useful suggestions.

Hypnotic induction Techniques suggested by McCarthy (2000) were used to induce a hypnotic trance. Peta was directed to sit back comfortably, let her eyes close, and listen to the sound of my voice. Various truisms regarding external awareness were offered — that even though her eyes were closed she could remain aware of her surroundings, the size and shape of the room, sounds and

touch sensations. She was then told a story of how, as a child, I used a magnifying glass to focus light to create heat. This metaphor was then linked to the current goal of focused concentration. Guided progressive muscle relaxation was used to deepen the trance. Ratification was achieved by inviting Peta to notice how her brain now perceived the sensations from her body differently. Peta reported that she felt heavier, warmer, and bigger. Further deepening was achieved by suggesting that with each breath she could move deeper and deeper into trance.

Trance utilisation Various therapeutic suggestions were then made including:

- That her mind and body were working together to free her from the tics.
- That she had all the strength she needed inside herself to be free of the tics.
- That she could picture herself in a situation where she has experienced many tics in the past. That she is feeling calm and relaxed. That her subconscious is aware of the first signs that a tic might occur. All of her senses helping her to be alert to the first occurrence of a tic.
- That she could picture herself successfully using her competing response.
- That the use of her competing response makes her feel good. Using her competing responses reminds her that she is taking steps to be rid of the tics. Using her competing responses gives her a sense of wellbeing and self-approval.
- That the more she practises her competing response the more powerful the effects of the response.
- That the fewer and fewer tics she experiences, the stronger and stronger her resolve to be free of the tics.
- That she could find a phrase or an image to anchor her resolve to be free of the tics.
- That she could picture herself being free of the tics — that this is who she truly is.

Peta was guided back to ordinary awareness by counting from 1 to 10.

Hypnosis debriefing Debriefing at the conclusion of the trance work resulted in positive feedback. Peta reported that she had become extremely relaxed and was able to picture the suggestions put to her. Overall, she advised that she thoroughly enjoyed the experience.

Self-hypnosis instruction Peta was agreeable to learning how to recreate this

state of mind by herself. Consequently, she was taught a “finger attraction” technique for achieving self-hypnosis. Once back in trance, it was suggested that she could use self-hypnosis when she chose to. That the more she practised, the more skilled she would become at achieving this wonderful state. It was also suggested that while doing self-hypnosis she could give positive suggestions about the tics becoming less frequent. That she could think about a wonderful comfortable future, as if it were really happening now. When ready, Peta was told that she could count herself back to ordinary awareness.

Contingency management Peta’s husband (who was also present in the first session) was instructed to reinforce Peta by commenting favourably on her improved appearance during tic-free periods or significant reductions in symptoms. Peta was encouraged to participate in social activities that were previously avoided because of the social disruptiveness of her tics.

Homework Peta was asked to practise her competing response whenever she emitted a tic. She was also instructed to practice her self-hypnosis at least once per day, but also whenever she felt anxious. Finally, both Peta and her husband were instructed to record the incidence of each of the tics for a 10-minute period each evening.

Session 2

Peta attended her second session, a fortnight later, on her own.

Review Peta stated that she had had a very busy two weeks and that, while she had noticed a reduction in the number of tics, she had not completed any monitoring. Further, she stated that she felt too embarrassed to practise her competing responses when anyone was present, including her husband. Although practising the self-hypnosis exercise, she stated that she had not been able to achieve the same degree of relaxation she had achieved at the previous session.

Hypnotic induction Peta was instructed to take herself back to a trance state using her finger induction technique. Then various Elman (1984) rapid induction techniques were used as deepening strategies. Peta was instructed to turn her attention to her breathing, to take a deep breath in, hold it, and then let it go. She was asked to notice her breathing finding a soothing rhythm and allow all the muscles of her body to relax. Peta was then asked to turn her attention to her eyes. It was suggested that she could relax her eye muscles so that they were so tired and heavy that they would not open. Eye catalepsy was tested by inviting Peta to (briefly) try to open her eyes just a bit. Fractionation

by repeated eye closure with interspersed suggestions of trance deepening and relaxation followed. Then an imaginary walk down steps to a sunken garden to a seat of “peace and power.” Then counting down from 100 with the numbers being lost for mental relaxation. Trance ratification was achieved through hand levitation.

Trance utilisation Similar therapeutic suggestions were made as those used in the previous session. That Peta’s unconscious and conscious mind were working together to free her from the tics. That she had the strength inside herself, the unconscious mind was already taking the steps needed to free her from the tics, effortlessly. Reacquainting herself or perhaps finding another anchor to which she could anchor her resolve to be free of the tics.

Reviewing the inconveniences, embarrassment, and suffering that resulted from emitting the tics as well as the positive aspects of eliminating tics. Seeing these points listed on a writing board. Allowing these reasons to swell motivation and commitment and resolve.

A symbolic rehearsal procedure was used where it was suggested that Peta could notice herself in a situation in which she had found herself experiencing the tics many times in the past. She was asked to picture herself going about her usual business but subconsciously aware. Noticing the first indications that a tic might occur. Automatically she found herself using her competing response. Feeling good about herself for using her competing response. Reminding herself of the reasons why she wanted to be free of the tics and recognising that each practice of her response was a step closer to being tic free. Her unconscious noticing that the tics which were once a part of her were “fading, dissolving, detaching, breaking up ... like clouds in the wind.” Suggestions were given for increased awareness of the first signs of a tic and the ability to relax and let the moment pass, or use a competing response.

Peta was prompted to find herself in social situations that she has previously avoided, feeling relaxed, calm, comfortable, and serene. She was asked to recognise her inner strength to follow through on her competing responses, if she needed them.

It was suggested that the more Peta practised the strategies outlined in these sessions, the more proficient she would become, and the more proficient she became the more powerful the strategies’ effects. That she would find each moment become easier and easier, because she would be developing more and more strength and resolve.

Peta was guided back to ordinary awareness by imaging herself coming down through the clouds and falling into her body. She was asked to open her

eyes, although only as quickly as she realised that she could re-access this state at any time in the future, but only deeper.

Hypnosis debriefing Peta reported that she went into a deeper trance this session. She expressed amazement at the experience of hand levitation and said that she would never have believed she was capable of experiencing such a thing. She stated that she found the whole experience very powerful.

Competing response practice Peta was prompted to practise her competing responses in the session. She did so with reservations, reporting that she felt very embarrassed and uncomfortable practising the strategies in front of others. Peta reported a subjective discomfort scale rating of 9 when practising the exercises. The rationale for using her competing response was reviewed and strategies to overcome her discomfort were discussed.

Peta had difficulty reporting thoughts that were going through her mind when practising the exercises. Despite this, coping self-statements for when she used her competing responses were generated, including “my husband loves me” and “I am doing this for myself.” Peta also decided to explain to others why she was using her competing responses. She was then prompted to practise both of her competing responses in the session and maintain each one until her subjective discomfort rating reduced to a 5. This practice was repeated several times. The importance of maintaining her competing response until her level of discomfort reduced (to permit the process of habituation to occur) was stressed.

Homework It was negotiated that Peta would practise her competing response in front of her husband each morning. Peta also agreed to practise her competing response as often as she could after emitting a tic. She also agreed to practise self-hypnosis every day. No further sessions were scheduled. Instead, Peta was asked to make phone contact if she would like to schedule another session in the future.

OUTCOME

Almost two weeks later I received a telephone call from Peta. She happily stated that she did not feel another session was necessary as she had experienced a significant reduction in her tics over the previous fortnight. She stated that she felt something had “clicked” in session 2 and that she had had little need to practise her competing responses. Peta was warned that her tics might get worse in the future but that in such a case she now had the skills to deal with such an eventuality. Nevertheless, she was encouraged to make contact should she re-experience difficulties in the future.

DISCUSSION

The psychotherapy literature suggests that the awareness training and competing response training of habit reversal are the key components to successful intervention with tic disorders (Miltenberger et al., 1998). This case study describes the (apparently) successful incorporation of hypnosis to support these behavioural approaches.

Specifically hypnosis was used to:

- promote relaxation in situations where tics were thought to be more likely to occur,
- increase Peta's awareness of the occurrence of tics,
- increase motivation to use competing responses,
- increase the effectiveness of the competing response,
- associate using her competing response with feelings of wellbeing and self-approval,
- increase expectancy for reduction of tics, and
- suggest a direct reduction in the frequency and severity of tics.

In this way other components of habit reversal (such as habit inconvenience review and symbolic rehearsal) were incorporated within the trance work.

Miltenberger et al. (1998) speculated that for those individuals for whom habit reversal is ineffective, compliance is most likely to be the blame. Peta was very self-conscious about her tics and about using her competing responses. This self-consciousness caused her to avoid self-monitoring her tics and practising her competing responses. The habituation exercises used in session 2 (and instruction to repeat the exercises on a daily basis in front of her husband and others) was intended to reduce Peta's discomfort and consequently increase her compliance with the treatment procedures. It may also have been useful to have provided more symbolic exposure and more suggestions to feel comfortable using her competing responses in front of others while she was in trance. Since embarrassment is reported to be commonly associated with the treatment of tics, such procedures might be usefully incorporated routinely into intervention plans.

Unfortunately, the lack of independent measures, or even self-recording, meant that it is impossible to assess the extent of the success of this intervention, or the mechanisms through which the intervention proved to be successful. While the use of competing responses is recognised as being an active ingredient of habit reversal, the extent to which Peta practised her competing responses is not clear. She certainly found the hand levitation in the second

session to be very powerful and it is possible that this strengthened her belief that she could have some direct influence over the tics. Whether this increased the effectiveness of her competing responses or meant that the use of her competing responses were irrelevant is unclear.

There is little research into the use of hypnosis for the treatment of motor tics. The intervention and apparently successful outcome described in this paper provide some support for the further investigation of the utility of hypnosis as an adjunct to habit reversal for the treatment of motor tics.

REFERENCES

- Azrin, N. H., & Nunn, R. G. (1973). Habit reversal: A method of eliminating nervous habits and tics. *Behaviour Research and Therapy*, *11*, 619–628.
- Azrin, N. H., Nunn, R. G., & Frantz, S. E. (1980). Habit reversal versus negative practice treatment of nervous tics. *Behavior Therapy*, *11*, 169–178.
- Elman, D. (1984). *Hypnotherapy*. Haverford, PA: Westwood Publishing Co.
- Finney, J. W., Rapoff, M. A., Hall, C. L., & Christophersen, E. R. (1983). Replication and social validation of habit reversal treatment for tics. *Behavior Therapy*, *14*, 116–126.
- Kirsch, I. (1990). *Changing expectations: A key to effective psychotherapy*. Pacific Grove, CA: Brooks/Cole.
- Kohen, D. P. (1995). Coping with the stress of Tourette syndrome in children and adolescents: Use of self-hypnosis techniques. *Australian Journal of Clinical and Experimental Hypnosis*, *23*, 145–157.
- Kohen, D. P., & Botts, P. (1987). Relaxation-imagery (self-hypnosis) in Tourette syndrome: Experience with four children. *American Journal of Clinical Hypnosis*, *29*, 227–237.
- McCarthy, P. (2000, October). *Sucking eggs and polishing teapots*. Australian Society of Hypnosis (WA Branch) Workshop. Perth.
- Miltenberger, R. G., & Fuqua, R. W. (1985). A comparison of contingent versus non-contingent competing response practice in the treatment of nervous habits. *Journal of Behavior Therapy and Experimental Psychiatry*, *16*, 195–200.
- Miltenberger, R. G., Fuqua, R. W., & Woods, D. W. (1998). Applying behavior analysis to clinical problems: Review and analysis of habit reversal. *Journal of Applied Behavior Analysis*, *31*, 447–469.
- Schoenberger, N. E. (2000). Research on hypnosis as an adjunct to cognitive-behavioral psychotherapy. *The International Journal of Clinical and Experimental Hypnosis*, *48*, 154–169.
- Young, M. H. (1991). Tics. In W. C. Wester II, & D. J. O'Grady (Eds.), *Clinical hypnosis with children* (pp. 97–112). Philadelphia, PA: Brunner/Mazel.