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HYPNOTIC IMAGERY AS AN ADJUNCT TO THERAPY FOR IRRITABLE BOWEL SYNDROME: AN EXPERIMENTAL CASE REPORT

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Abstract

Irritable bowel syndrome (IBS) is a debilitating condition affecting between 14 and 25% of the general population. Medication has been reported to be of limited efficacy. However, there is increasing evidence suggesting that hypnotic imagery can be an effective adjunct to therapy for this problem. The present experimental single case study aims to illustrate the process of psychological treatment of IBS with the adjunct of hypnosis and to explore the effectiveness of particular interventions. Over 10 sessions of treatment an overall reduction of 64% was seen in primary IBS symptoms. At 9-months follow-up this had improved further to a 72% reduction in primary symptoms and lower anxiety levels. The marked improvement seen with this client is consistent with the view that hypnosis is an effective adjunct to IBS treatments. Copyright © 2006 British Society of Experimental & Clinical Hypnosis. Published by John Wiley & Sons, Ltd.

Key words: irritable bowel syndrome, cognitive behavioural therapy, hypnosis, anxiety management, gut-directed imagery, pain

Introduction

Irritable bowel syndrome (IBS) has been estimated to affect between 14 and 25% of the general population (Jones and Lydeard, 1992; Houghton, Heyman and Whorwell, 1995). Core symptoms are abdominal pain, distension and altered bowel habit, all of which impair quality of life. The cause of IBS is not fully understood but food intolerance, stress and past trauma, are thought to play a part in its development (Gonsalkorale, Houghton and Whorwell, 1998; Rutter and Rutter, 2002). Medication has been reported to be of limited efficacy (Rutter and Rutter, 2002; Gonsalkorale, Miller, Afzal and Whorwell, 2003).

A randomised controlled trial (Whorwell, Prior, Faragher, Lancet, 1984) found that psychotherapy with the adjunctive use of hypnosis produced significantly better outcomes in clients with refractory IBS than in a group receiving psychotherapy plus a placebo. Similarly, a study based on 50 clients who received up to 10 weekly sessions of 'gut directed' imagery in hypnosis reported significant levels of improvement in symptoms in 84% of cases (Whorwell, Prior, Colgan, 1987). In an audit of 204 IBS clients treated in this way 72% responded to therapy with significant levels of improvement and 82% of these had maintained this improvement over follow-up periods of up to 5 years, with further improvement in 65% (Gonsalkorale et al., 2003). Typical gut-focused imagery might include teaching clients with diarrhoea a self-hypnosis routine in which they represent their bowels as a fast flowing river, which they then change into an image

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of a meandering stream (Francis and Houghton, 1996; Galovski and Blanchard, 2002; Zimmerman, 2003). Palsson (2006) has also demonstrated the successful application of hypnosis to the treatment of IBS. Using a standardized seven–session protocol, based on the verbatim use of hypnosis scripts, 80% of patients achieved symptom improvement.

The approach adopted in the present report is based on a protocol including the use of hypnosis, developed by Gonsalkorale and Whorwell (Gonsalkorale et al., 1998; Gonsalkorale, 2006). Additionally, hypnotic ego-state therapy has been used (Watkins and Watkins, 1997).

Presenting problem

Rebecca's IBS symptoms were predominately abdominal pain and abdominal distension which she attributed to 'excess wind'. Her IBS was formally diagnosed fairly recently (meeting Rome I criteria, Drossman, 1999) but she believed that she had suffered from it for 28 years.

Background

Rebecca was 49 year old and was referred by a Consultant Gastroenterologist. She was married with a daughter aged 20 years and sons aged 17 and 10 years. The youngest son suffered from Attention Deficit Hyperactivity Disorder (ADHD) (American Psychiatric Association. 1994). Rebecca's father was a Holocaust survivor and had suffered with mental health problems ever since. As a child Rebecca had always feared that she could cause her father to have a heart attack, a fear that continued to concern her in adulthood.

Assessment

Responding to an IBS questionnaire (Francis, Morris and Whorwell, 1997), Rebecca identified four sites of abdominal pain, abdominal distension and moderate dissatisfaction with bowel habit as her major symptoms. She also suffered from anxiety (mainly about her family) and hyperventilation. Certain foods made the symptoms worse as did her eating pattern. Being on holiday improved her symptoms.

Measurement of change

The IBS questionnaire (Francis et al., 1997) was administered at the start of therapy and on two occasions post therapy and a section of the questionnaire focusing on her IBS symptoms and the extent to which these interfered with her with life, was completed by Rebecca each week during the course of therapy.

Therapeutic approach

Therapy followed a broadly cognitive-behavioural (CBT) approach (Toner, Segal, Emmott and Myran, 2000) but with the addition of ego-state therapy (Watkins and Watkins, 1997) to assist exploration and resolution of past issues.

All hypnotic procedures commenced with eye closure and a hypnotic induction involving focusing away from external stimuli, towards an internal focus generated by suggestions of muscle relaxation and drifting towards a relaxing place. Most hypnotic

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interventions lasted approximately 20 minutes except those that involved reliving and resolution which lasted about 45 minutes.

Therapeutic process

Therapy consisted of 10 one-hour sessions mostly at one or two-week intervals over a 14-week period. Follow-up sessions were conducted 7 and 9 months after completion of therapy. The therapist throughout was VW.

Assessment session
After Rebecca completed the IBS questionnaire (Francis et al., 1997) and history-taking the potential usefulness of self-hypnosis techniques in managing IBS symptoms was outlined. Hypnosis was presented as a combination of trance and suggestion. Examples of everyday trance experiences, such as daydreaming, were given and the concept of 'suggestion' was illustrated by suggesting to her that she imagine sucking a lemon (Whorwell, 1991). Her resultant salivation was presented to her as evidence that verbal suggestions can create an automatic physiological response.

*Session one**
The Creative Imagination Scale (CIS, Barber and Wilson, 1979) was administered. She scored 14, the normative mean score being 20.8. She rated her responses to a 'reliving' and a 'relaxation' scenario as very similar to 'real' experiences. Rebecca was taught a diaphragmatic breathing technique to use between sessions which entailed visualising breathing out a colour that represented her stress.

Session two
This session took place after a short holiday. Rebecca said that she had found the breathing technique very helpful and that her stomach distension had been reduced, attributing this to feeling less stressed. She was thus taught a self-hypnosis routine involving imagery of being back on holiday. She was given an audio tape of the hypnotic procedure and was asked to listen to it each day.

Session three
Rebecca used the audio tape 10 times during the previous week and was feeling calm in spite of having experienced a stressful time. Whilst still less bloated, most of her other IBS symptoms had been troublesome. Rebecca was taught another self-hypnosis procedure which focused directly on healthy gut activity (Whorwell et al., 1987) and mastery over her symptoms. She was taught to place her hand on her stomach and focus on increasing warmth in the palm of her hand to soothe the pain (Gonsalkorale et al., 1998). This procedure was taped for Rebecca to use at home.

Session four
Rebecca used self-hypnosis between 7–10 times during the previous week, her flatulence was improving and she continued to feel less pain. Rebecca was asked to describe how she imagined her guts working. She described an image of undigested food passing down the gut, gas becoming trapped and causing pain. Her eating habits were discussed and Rebecca agreed to spread her food intake more evenly throughout the day. She described

*An asterisk indicates that no hypnosis used.

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imagery of her anticipated healthily functioning guts in which digestive juices flowed as the food moved along, the gas being absorbed through the wall of the relaxed gut. This was incorporated into a hypnotic procedure along with imagery of a smooth flowing river (Whorwell, Prior and 1987) and the hand warming technique along with the following suggestions:

- breathing out adrenaline would trigger digestive juices to flow
- the more relaxed she could feel, the more elastic her guts would be and the more gas her guts could comfortably accommodate
- her guts would appreciate appropriately sized, and regular, meals

The hypnotic routine was recorded and given to Rebecca to use at home.

*Session five**
Rebecca arrived feeling stressed but nevertheless noticed that she had been less aware of her IBS. She had been continuing to use self-hypnosis as well as the audio tape recording from session four and was using the hand warming technique. This session focused on her cognitions regarding her parents. Rebecca realised that to avoid feeling guilty, she had taken responsibility for her father's feelings and given him unlimited support, and that this had increased her stress.

Session six
A hypnotic technique was used in which it was suggested that Rebecca drift back in a protective bubble "to a time that would be helpful to re-visit" (Alden, 1995). She saw herself as a 4 year old and remarked that her mother seemed enormous. Her younger self was feeling that she had caused her father to be angry. Using ego state techniques (Watkins and Watkins, 1997), it was suggested that Rebecca's 'older wiser self' who 'had all the wisdom of understanding children', could hug her 4 year old self and say something to help her feel better. Rebecca then told her 'child self' that she was good hearted and misunderstood by her parents and 'daddy couldn't help his anger because he had problems'. The 4 year old Rebecca then reported that her mother was telling her that she didn't mean to blame her for her father's distress. Her younger self reported that she felt strong and very special and was left playing happily on a beach whilst 'older wiser 'Rebecca' returned to the bubble and back to the present. When Rebecca opened her eyes she said that whilst she would never forget what had happened to her father during the war, she felt clearer that her parents were wrong to blame her for his mental anguish and that the responsibility for it was not hers. Rebecca was to visit her father the following weekend and coping strategies were discussed.

Session seven
Rebecca's flatulence had improved and she was feeling more confident. Her new coping strategies had worked well with her father and she had felt more in control. She wanted to use one more session to help her resolve a particularly painful event. In a hypnotic reliving Rebecca went back to when she was 21 years old – the time her IBS was first noticed, experiencing a 'terrifying breakdown' and telling her parents that she wanted to kill them. Ego state techniques were used so that her 'older wiser self' could help her 21year old self. She hugged and reassured her younger self telling not to be afraid because one day she would be helped. After this intervention Rebecca said it felt an achievement to have addressed this memory.

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*Session eight**
Rebecca's progress was reviewed. She reported feeling calmer and that her flatulence was much better.

*Session nine**
Rebecca reported that using assertiveness skills with her father had been particularly helpful. She was also using breathing techniques and hypnotic hand warming.

*Session ten**
Rebecca reported that her stomach felt 'much, much better'. Her gastroenterologist was pleased with her progress and discharged her. In summing up her progress she commented that the sessions that focused on the past had been particularly helpful and that her feelings towards her father had improved. In spite of recently experiencing a very stressful time, she had successfully used self-hypnosis to manage her IBS and control her stress.

Results

Mean symptom scores are shown in Table 1. Symptom Reduction Scores (calculated as pre-treatment rating minus post-treatment (or follow-up) rating/pre-treatment rating) (Blanchard and Schwartz, 1988) are shown as percentages in brackets. With exception of anxiety scores these show substantial reductions in symptoms (ranging from 37% to 77%) by the end of treatment that are maintained at 9 month follow-up. In the case of anxiety, though there is an overall reduction at follow-up, a slight increase was seen at the end of the treatment phase (reflecting a stressful family situation).

Symptom Reduction Scores (SRSs) were then used to calculate a Composite Primary Symptom Reduction Score (CPSRS) that has been used primarily to evaluate the clinical significance of changes in IBS symptoms (Blanchard and Schwartz, 1988). The primary IBS symptoms in this case are stomach distension and abdominal pain (intensity and frequency) – the CPSRS was calculated by taking the three corresponding SRSs and dividing by 3. The CPSRS at the end of treatment was 64 and at 9 month follow-up was 72 on this basis. Rebecca can be considered to have improved by 64% over the course of treatment and to have reached a level of 72% improvement at follow-up. Categories of clinically significant change defined by Blanchard & Schwartz (1988) and adopted by other for reporting the outcomes of IBS treatment (Blanchard, 2001; Lynch and Zamble,

Table 1. Mean symptom scores (out of 100) at the start of treatment, at the end of treatment and at follow-up in the single case reported here. Symptom Reduction Scores are shown as percentages in parenthesis (negative value = increase). See text for further explanation.

	Start of treatment	End of treatment	Follow-up
Stomach distension	61	23 (62%)	25 (59%)
Pain intensity	48	22 (54%)	16 (66%)
Pain frequency	79	18 (77%)	7 (91%)
Anxiety	72	84 (–17%)	33 (54%)
Interference with life	69	28 (59%)	34 (51%)
Dissatisfaction with bowel habit	49	31 (37%)	29 (41%)

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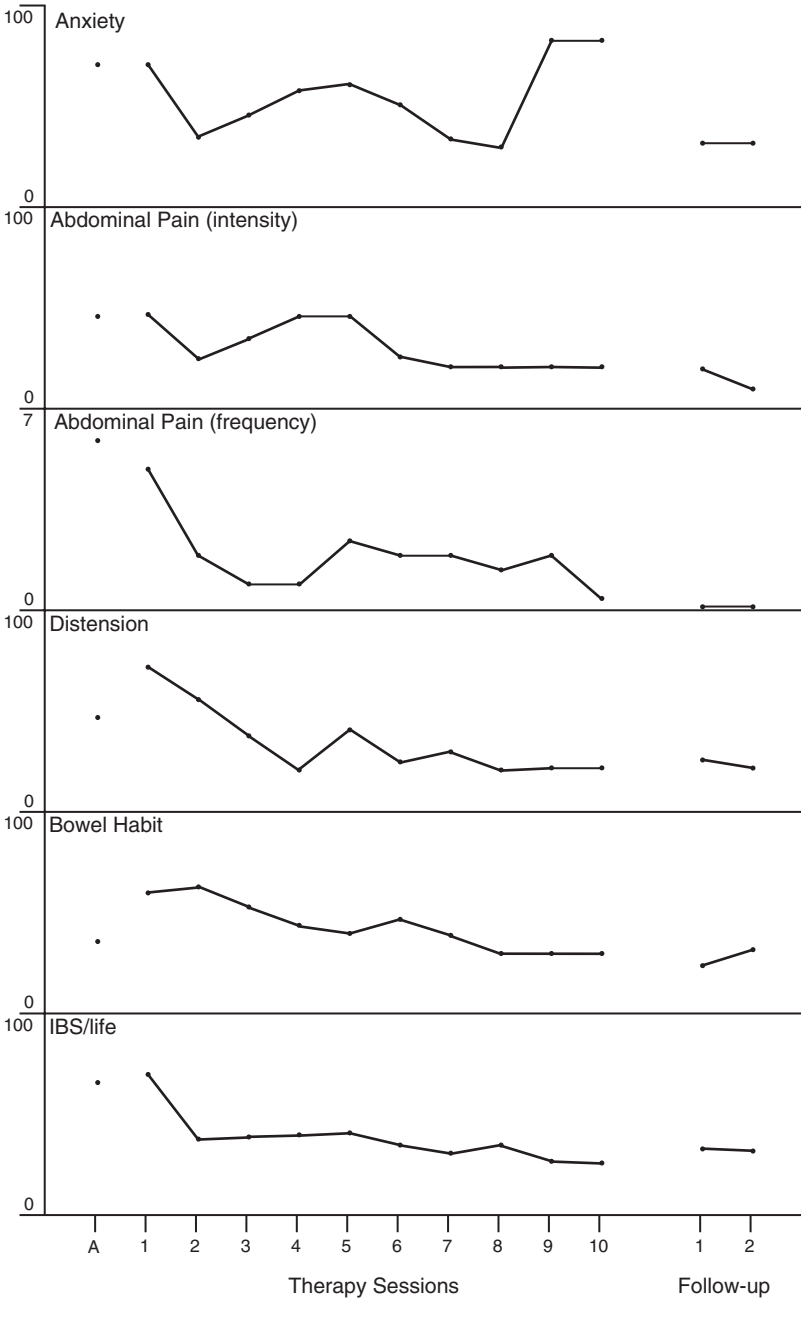

Figure 1. Showing self-ratings out of 100 for anxiety, intensity of abdominal pain, stomach distension, dissatisfaction with bowel habit and the degree to which the IBS symptoms interfered with life generally. The frequency of abdominal pain is shown as the number of days per week on which pain was experienced to the nearest half day. All measures relate to the week following the session identified on the bottom axis of the figure. 'A' is the assessment session. Follow-up sessions were at 7 and 9 months respectively after the final therapy session.

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1989; Van Dulmen, Fennis and Bleijenberg, 1996) are: 50–100% = 'Improved', 25–49% = 'Somewhat Improved', and 0–24% = 'Unimproved'. By these criteria Rebecca can be considered to be well into the clinically 'Improved' category.

All the outcome measures are shown in Figure 1. In confirmation of the SRS's shown in Table 1 the clearest overall change can be seen in the frequency of abdominal pain with its virtual elimination by the end of therapy. The major change in pain frequency is attributable to session 2 in which Rebecca had been taught hypnotic relaxation. Intensity of abdominal pains shows a similar but less marked decline. Interestingly, anxiety and pain intensity follow almost parallel courses up to session 5 after which they begin to diverge. Reduction of distension shows a similar pattern to reduction of abdominal pain frequency though with a slower initial course. 'Bowel habit' shows a more general steady reduction over the treatment. Finally, the overall lessening of the impact of IBS on Rebecca's life (reflecting the 59% reduction shown in Table 1) can be seen to have taken place mainly after session 2. In addition Rebecca was unable to identify any specific sites of abdominal pain by the last session of therapy, whereas before therapy she had identified four.

Discussion

Overall it seems that interventions used in session one and two predominantly affected Rebecca's abdominal pain and were associated with the beginnings of a reduction of abdominal distension. The reduction of abdominal distension, however, shows a slower pattern of change that commenced before the introduction of gut-directed imagery and continued afterwards. Improvements in satisfaction with bowel habit, and the reduction of interference of IBS with life generally take a more gradual course. Rebecca's verbal reports, alongside her scores rating more general aspects of her improvement, suggest that assertiveness training, resolution of painful past events, identification of her coping style and guidance on eating habits also contributed to her improvement. Nevertheless, the improvements in core IBS symptoms seem to predate the interventions that addressed particular psychological issues (such as feelings connected to her father). This suggests that a direct symptomatic approach in IBS cases such as Rebecca's should be used initially – especially where numbers of sessions are limited.

It may nevertheless be the case that long term maintenance of symptomatic change and general psychological health are facilitated by the resolution of pre-existing psychological difficulties which may have contributed to the onset of the IBS. While Rebecca herself attributed the success of therapy largely to the use of hypnosis it is not possible within a single case study to evaluate the role of the hypnotic context *per se* in facilitating outcome. Nevertheless, the marked improvement seen in only four sessions is consistent with the view that hypnosis is an effective adjunct to IBS treatments (Gonsalkorale et al., 2003; Whorwell et al., 1984). It should also be noted that whilst Rebecca's CIS scores (Barber and Wilson, 1979) were generally low, her ability to respond well to relaxation and reliving suggestions may have been important factors in the success of therapy.

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