Hypnotherapy in the treatment of irritable bowel syndrome

Wendy M. Gonsalkorale and Peter J. Whorwell

There is accumulating and compelling evidence that hypnotherapy is an effective treatment for irritable bowel syndrome. Recently, studies have shown that hypnotherapy has beneficial effects that are long lasting, with most patients maintaining improvement, and with decreased consultation and medication needs in the long term. The particular gut directed approach used, which is aimed at normalizing and controlling gut function, is also described. While the mechanisms of how hypnotherapy brings about its therapeutic effect are not fully known, changes in colonic motility and rectal sensitivity have been demonstrated, although changes in central processing and psychological effects may also play a role.

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Department of Medicine, University Hospital of South Manchester, UK

Correspondence to Dr W.M. Gonsalkorale, Department of Medicine, 1st floor ERC, University Hospital of South Manchester, Wythenshawe Hospital, Manchester M23 9LT, UK
Tel: +44 161 291 5813; fax: +44 161 291 5806;
e-mail: wgonsalkorale@compuserve.com

Historical background to hypnosis

Hypnosis has been practised under a variety of different guises to heal the sick since ancient times by individuals such as tribal medicine men and religious leaders [1]. The earliest medical records describe miraculous cures by priests or demigods, who induced a sleep-like state during ceremonial rites in the Aesculapian temples of ancient Greece. Hindu fakirs and the Indian yogi, among others, also used hypnosis without realizing it. Hypnosis as it is known today has its roots in 18th century medicine when the practice of 'animal magnetism' was used to elicit cures through magnets strapped to the body, a method plagiarized by the Austrian physician, Franz Anton Mesmer, thus giving rise to the term 'mesmerism'. After realizing that these effects were due to the imagination, not to magnetism, the physician James Braid coined the term 'hypnosis', from the Greek word *hypnos*, meaning sleep, to denote the special trance-like state observed in subjects when these cures took place. Eminent physicians of the day, such as Liébault, Bernheim, Charcot, Breuer and Freud, have also been associated with the use of hypnosis. Many pioneers who espoused the practice of hypnosis have been called charlatans by their colleagues. Among these were Elliotson, who also introduced the stethoscope, and Esdaile, a Scottish surgeon working in India in the 1840s, who performed countless painless surgical operations using hypnosis as the sole anaesthetic. Despite falling into disrepute for a period for a variety of reasons, renewed interest in hypnosis led to the realization that it can be a very useful adjunct to treatment for many medical conditions, such as migraine, skin disorders, hypertension and asthma, as well as for pain relief [2–6]. It has also been used to promote psychological change and has been applied most recently to enhance performance in, for example, music and sports [7].

What is hypnosis/hypnotherapy?

Much mysticism and misconception surrounds the subject of hypnosis with images of the patient being under the control of the hypnotist. There is no commonly accepted definition of hypnosis, although it has been described as 'believed-in imagination', or as 'an influential form of communication', while the hypnotic state or 'trance' can be thought of as a natural state of focused attention or mental absorption which we are all able to achieve, although often to a varying degree. Individuals routinely enter trance states spontaneously, such as may be experienced during daydreaming [8]. However, hypnotherapy relies on an intentional induction of the hypnotic state, and this can be achieved by a whole variety of methods including deep relaxation, mental imagery or more subtle indirect techniques, but there is never any loss of 'will' or consciousness. Once induced, the trance state can be intensified or 'deepened' by a number of techniques, although great depth is not a prerequisite for a good therapeutic outcome. This is then followed by therapeutic interventions using a combination of direct or indirect suggestions, which can incorporate metaphors or analogies of the problem. People differ in their degree of natural hypnotic ability and, although some hold that this is a stable trait, it is a learned skill that can improve with practice [9]. It is assumed that during the hypnotic state a person is better able to accept and assimilate new ideas and concepts. Just how this happens is uncertain, but according to one theory there is a subtle shift away from the critical, analytical conscious processes invol-

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ving left cerebral hemisphere function towards more subconscious creative and imaginative processes, thought to involve the right hemisphere [10]. There is also evidence that areas of the brain in the fronto-limbic regions concerned with cognitive and attentional processes are brought into play [11].

It is not the hypnotic state, as such, that is beneficial, but rather it serves as the tool to deliver the interventions which bring about therapeutic change. To this end, it can facilitate and enhance the effectiveness of other psychological interventions, such as the retrieval of unconscious material and insights, as associated with psychodynamic therapy, and reformulation of maladaptive thoughts and beliefs, pertaining to cognitive behavioural therapy [12,13]. Hypnosis thus has an important role in reducing stress and resolving psychological problems. Of particular relevance to the treatment of medical conditions, and similar to advanced meditative techniques practised by yogis, the hypnotic state can allow the person to more readily influence physiological mechanisms not normally under conscious control, such as bronchial reactivity, smooth muscle tone, gastric secretion and immune responsiveness [5,14,15].

Hypnosis in the treatment of irritable bowel syndrome

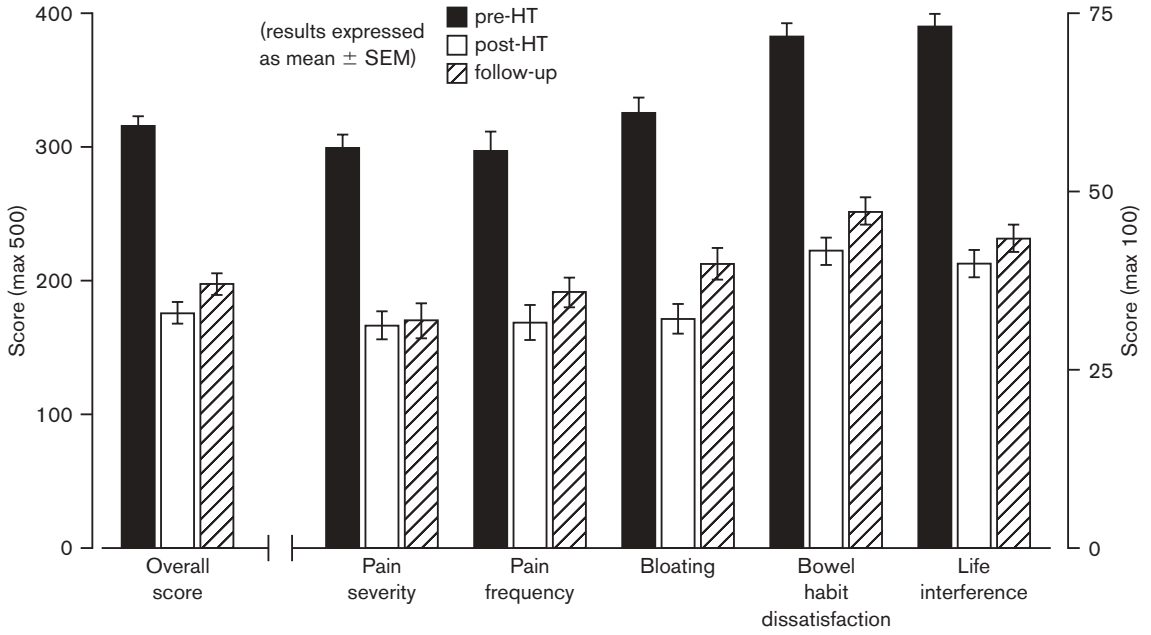
Conventional treatment for irritable bowel syndrome (IBS) is often far from satisfactory, with many patients finding that their symptoms do not respond adequately to currently available medications. It is generally accepted that IBS is multifactorial in origin, with a combination of biological and psychosocial factors operating within any particular individual to produce, or at least affect the expression of, symptoms [16]. The socioeconomic consequences are considerable, since symptoms can be sufficiently severe and troublesome to impair quality of life [17] and are also a common cause for absenteeism from work [18]. Patients represent a significant drain on the healthcare system, with repeated consultations, investigations and medication costs and are often difficult to manage because of the lack of adequate help on offer to them [19].

Based on the rationale that hypnosis has been used to alleviate pain, has been shown to affect smooth muscle reactivity and is also a valuable aid to relaxation and reducing psychological distress, its potential role in the treatment of IBS was investigated in an attempt to find more satisfactory ways to treat this condition. The original study [20] involved 30 patients with severe symptoms that were refractory to conventional medication. Over a 3 month period, patients who received half-hour sessions of 'gut directed' hypnotherapy (based on suggestions of increased well-being and specific gut related suggestions, together with a tape for daily autohypnosis) showed highly significant improvement in symptoms compared with other patients who received a combination of supportive consultation and placebo medication. Improvement occurred in about 80% of patients, measured by a reduction in all bowel symptoms, such that symptoms were mild or absent without medication, together with an increased sense of general well-being. These beneficial effects were generally sustained after termination of treatment [21]. It was found in a later study that hypnosis also improved associated extra-colonic symptoms and quality of life measures, with more patients returning to work and having fewer visits to the doctor for IBS or other symptoms [22]. Similar findings have also been independently reported by others using an identical [23,24] or similar approach [25,26] to the original study [20].

As a consequence of this work, the first hypnotherapy unit within the UK National Health Service, dedicated to providing treatment for IBS patients, was established. An audit on the first 250 patients treated within this unit was published, confirming that hypnosis improved all IBS and associated extra-colonic symptoms, quality of life and psychological well-being in this large group of subjects [27]. Long-term follow-up has also recently been undertaken on more than 200 patients who had completed treatment between 1 and 6 years previously, using questionnaires completed before and after a course of hypnotherapy and again at follow-up [28]. More than 70% of patients reported that their symptoms were very much or moderately better at the end of treatment, and of these, the majority (more than 80%) have subsequently maintained improvement over the follow-up period (Fig. 1). This improvement did not decline with time since symptom scores in those who had completed hypnotherapy more than 5 years ago were similar to those who had finished treatment 1 year ago (Fig. 2). In addition, patients reported that they had had fewer visits to the doctor for IBS or other symptoms, as well as reduced medication needs. This was particularly striking in those patients who had done well with hypnotherapy, with more than 80% having seen a doctor less often and only 36%, compared with 67% before hypnotherapy, taking medication, and of these 62% were taking it less often. In addition, Palsson and colleagues reported maintained improvement in a small group of patients at follow-up 10 months after completing treatment [25].

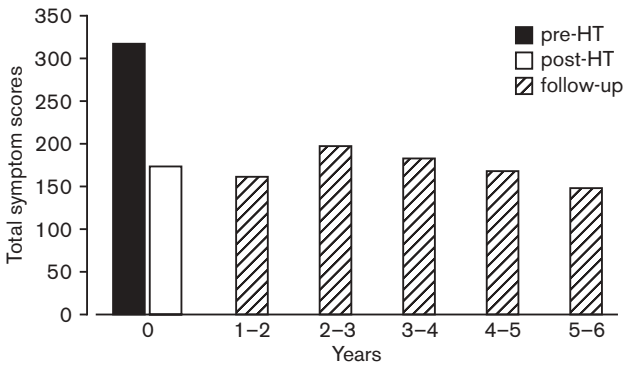
Thus, we have accumulating evidence that hypnotherapy is extremely effective in the majority of patients, and this effect is largely sustained even after the course of treatment has finished. The ensuing reduction in consultation rates and use of medication would also lead to lower healthcare costs.

Fig. 1



Symptom scores for irritable bowel syndrome in 204 patients rated immediately before and after a course of hypnotherapy (HT) (pre-HT and post-HT), and again at follow-up.

Fig. 2



Mean overall irritable bowel syndrome score shown for all patients ($n = 204$) before and after a course of hypnotherapy (HT) (pre-HT and post-HT), and at follow-up for patients subdivided according to the number of years since completing HT (1–2 years, $n = 46$; 2–3 years, $n = 38$; 3–4 years, $n = 56$; 4–5 years, $n = 44$; 5–6 years, $n = 20$).

How does gut directed hypnotherapy work?

Hypnosis, by its very nature, involves communication at the level of the mind which then acts to alter gut function through the pathways of mind–brain–body communication, such as through the neuroendocrine system. The extent to which this is effected by changes that are primarily psychological or physiological in nature is arguable. Certainly, the relaxation component of the hypnotic session produces autonomic changes at the time, which can be beneficial in itself [29,30]. However, out of a number of physiological parameters monitored to assess sympathetic function, only stress induced change in skin conductance was lower after treatment [25]. Reduction in pain is not merely due to hypnotic relaxation but generally requires specific suggestions for pain relief [31], although this may not always be the case, since it was reported that IBS patients experienced reduction in pain, irrespective or

whether or not they received specific suggestions for pain relief [25]. Certain emotions, such as anger, can affect colonic motility and rectal sensitivity [31,32], and consequently gut function might be expected to improve if these are alleviated. We have shown that hypnosis reduces colonic motility [33] and normalizes disordered rectal sensitivity [34,35]. Following hypnotherapy, pain sensory thresholds were increased in patients identified as hypersensitive before treatment, using a barostat distension technique, decreased in the hyposensitive group and were unchanged in those with normal sensory perception [35]. This was not found to be the case in another study [25] and the reason for this discrepancy is not known. Relief of pain could occur at the level of the gut or through modification of central nervous system processes. Pain can be relieved even though the source of pain is not removed, for example, during surgery or childbirth [36,37], and it is assumed that in such situations cognitive mechanisms can be employed that effectively allow the brain to ignore incoming pain messages or to reduce the associated unpleasantness. It has been found recently using brain imaging studies that patients with IBS have altered central processing of visceral sensation, in terms of increased activation, particularly of the anterior cingulate cortex, to painful rectal balloon distension [38,39]. Other studies have shown that fronto-limbic regions, such as the anterior cingulate cortex, are modified during experimental hypnotic analgesia [40–42].

How a person thinks about their condition, reflected in their stream of automatic thoughts or cognitions, may affect expression of symptoms. We have also shown recently that improvement in symptoms with hypnotherapy is associated with a reduction in IBS-related cognitions [43], although it is not clear whether this is a direct result of the therapy which has then helped symptoms or whether patients have become less concerned about symptoms as they have improved. Palsson and colleagues have proposed that hypnosis may improve symptoms primarily by altering the patient's focus of attention and/or his/her beliefs about the meaning of sensations from the gastrointestinal tract, based on their observation that psychological measures of somatization and general distress were reduced after treatment [25].

Outline of gut directed hypnotherapy

Gut directed hypnotherapy as currently practised within our unit consists of a course of up to 12 sessions, each lasting about 45–60 min, usually at weekly intervals, and conducted on a one-to-one basis with the same therapist throughout. Prior to commencing sessions, patients are seen for an initial consultation with the therapist in order to obtain a full history and relevant information. The origin of patients' symptoms are explained, based on the concept of abnormal gut sensitivity and muscle spasm, together with an explanation of what hypnosis is and what therapy entails. This is to inform patients how improvement can be expected and to allay any apprehensions. It is also an opportunity to establish rapport, as a good relationship is considered essential to the therapeutic outcome. Patients' active involvement in the therapy, in terms of their commitment and effort, is also emphasized, since a passive subject is more likely to experience a poor outcome.

The first two sessions include hypnotic induction, usually with progressive relaxation and other techniques to deepen the hypnotic state, followed by suggestions for general confidence building, 'ego strengthening' and increased well-being, relevant to the individual. The patient is given an audiotape, similar in content to the sessions, for daily use in order to practise autohypnosis. From the third session onwards, gut directed hypnotic suggestions and techniques aimed at normalizing and controlling gut function are also incorporated. These commonly include (1) the patient placing their hands on their abdomen and inducing a sense of warmth and comfort, and (2) imagery to symbolize the gut which is then altered accordingly to represent normal function. For example, a patient with loose bowels might imagine the gut as a rapidly flowing river and change it to a much slower smoothly flowing one. Many patients develop their own imagery which may be more meaningful. Patients are then expected to practise these techniques daily with the help of a second audiotape containing these gut directed suggestions and to use them on their own as necessary to help relieve symptoms. The techniques developed are then reinforced and/or modified as necessary in subsequent sessions during which time it is also possible to include other interventions to deal with any specific issues identified that trigger or exacerbate symptoms.

Improvement is not necessarily immediate and may not follow a smooth path but it is felt that at least eight sessions are needed before concluding that a particular patient may not respond at all. Some patients show initial improvement before suffering a setback. Patients can become disheartened if improvement is slow or symptoms worsen at any time and, therefore, it is essential for the therapist to encourage the patient throughout the sessions, especially if there has been a setback. Typically, this is done by reinforcing any improvements gained and other positive changes, and that any setback is only temporary. The emphasis throughout treatment is on the patient developing control over the gut rather than vice versa, as has generally been the case until then. This helps to promote an internal locus of control, which is known to be important for successful outcome, for example, in psychological approaches to pain management [44].

The primary focus of gut directed hypnotherapy is to assist the patient in developing hypnotic techniques in order to reduce and alleviate symptoms. Thus, it places emphasis on the person's potential to learn to influence physiological mechanisms not normally considered to be under their conscious control. Most patients consider there is a physical basis to their symptoms and may deny or be unaware of the presence of psychological issues even when they are obvious to the outsider. Therefore, the 'physical' approach of gut directed hypnotherapy is much more acceptable to the patient than a purely psychological one which may be interpreted as meaning that the clinician thinks that their symptoms are 'all in their mind'. While overcoming this barrier, hypnotherapy offers, at the same time, the opportunity to incorporate more psychologically-orientated interventions as and when necessary and at a time the patient is ready to accept them.

Hypnotherapy can make a huge difference to a patient's life, but it should be noted that it is not a cure for IBS. It cannot be guaranteed that a patient will never experience symptoms in the future. However, it puts patients in control again, arming them with the necessary techniques and coping strategies to overcome any bad spell and to relieve symptoms quite quickly. Occasionally, an extra session of hypnotherapy may be needed.

The approach adopted by Palsson and colleagues [25], partly modelled on the techniques developed in the original study [20], is slightly different in that it comprises a series of seven sessions over a 3 month period, incorporating standardized relaxation and guided imagery, with suggestions designed to produce overall physical relaxation, gut specific relaxation, reduced perception of life threat and lessened attention to gut discomfort. Patients are also expected to practise hypnosis daily with the help of an audio tape.

Hypnotherapy is a time-consuming process, although there is some evidence that treatment delivered in a group setting can also be beneficial [23], and it would be useful to identify those patients most likely to respond to treatment. It was originally reported that atypical cases and older patients (over the age of 50) tended to do less well [21], although the recent audit on large numbers of patients [27] showed that age was not a significant factor in affecting outcome. However, it appears that hypnotherapy is generally less useful in males with diarrhoea, since they were found to improve less than other patients [27]. Nevertheless, with demographic information, it has not been possible to predict accurately whether a particular patient will respond, and treatment is not denied on these grounds.

Anyone wishing to use hypnosis would be well advised to seek proper training, for a number of reasons. While some techniques can be relatively easy to acquire, the conventionally trained clinician may not feel comfortable with the terminology and jargon used, although this can be modified to suit the personality of a particular therapist. Practice is necessary to experience variations in response to a technique. Occasionally, a patient may experience an abreaction, or severe emotional response related to past traumatic experiences and therefore it is essential to know how to deal with this.

Conclusions

The evidence that hypnotherapy is effective in the management of IBS is now so persuasive that it has recently been suggested 'that the skills of the hypnotherapist should be made routinely available to patients with functional GI disorders' [45].

Author's note

Further information on training can be obtained from Dr W.M. Gonsalkorale. Contact details are given at the beginning of this paper.

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•• Of outstanding interest

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