

Review article: the history of hypnotherapy and its role in the irritable bowel syndrome

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SUMMARY

Hypnosis is a technique by which an individual can gain a degree of control over physiological as well as psychological function.

This paper reviews the history of the phenomenon as well as the accumulating evidence that it is effective in

relieving the symptoms of irritable bowel syndrome and improving the quality of life of sufferers. The physiological effects of hypnosis are also discussed coupled with an outline of how a hypnotherapy service might be provided.

HISTORICAL BACKGROUND

In 1955 the British Medical Association commissioned a report on the medical use of hypnotism, which even today, remains a remarkably insightful piece of work.¹ The document contains a particularly good definition of hypnosis:

A temporary condition of altered attention in the subject which may be induced by another person and in which a variety of phenomena may appear spontaneously or in response to verbal or other stimuli. These phenomena include alterations in consciousness and memory, increased susceptibility to suggestion, and the production in the subject of responses and ideas unfamiliar to him in his usual state of mind. Further phenomena such as anaesthesia, paralysis and rigidity of muscles, and vasomotor changes can be produced and removed in the hypnotic state.

Descriptions of the power of suggestion can be identified in writings dating back to ancient times but, because there was no common nomenclature, they have never been documented in any systematic way.

This all changed in the 18th Century when an Austrian physician named Franz Anton Mesmer (1734–1815) described a phenomenon which he called animal magnetism, subsequently, sometimes referred to as mesmerism. Mesmer considered that the health of the body was dependant on the even distribution of 'universal fluids' with disease occurring when their flow was blocked. He believed that this situation could be rectified by the application of magnetic fields although he subsequently found that other non-magnetic objects seemed to have a similar effect. He also thought that the induction of a crisis, which was presumably the patient going into a trance-like state, formed an important part of the healing process. There was also undoubtedly an appreciable element of showmanship involved in his work as he used to dress in a flamboyant manner and the rooms in which he practised were very elaborately appointed. Despite his own evidence to the contrary, Mesmer rigidly adhered to his theory of magnetism and was reluctant to allow his work to be submitted to any form of scrutiny. This, coupled with his rather eccentric personality, led to his fall from grace amongst mainstream medical opinion and this tendency for the medical profession to undermine the credibility of the technique persisted. Despite this, the idea of animal magnetism endured and

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its practice spread throughout Europe with the involvement of individuals such as: de Puysegur (1751–1825), Kluge (1782–1844), Wolfart (1778–1832), Deleuze (1753–1835) and de Faria (1755–1819). This approach to treatment also started to be used in the USA but subsequently the tendency for it to become increasingly associated with religious cults and various paranormal practices gave the medical profession a further opportunity to try and side-line the phenomenon.

James Braid (1795–1860), a surgeon working in Manchester during the mid-1800's, was introduced to mesmerism by a travelling French demonstrator of the technique. He gradually became more and more interested in its potential, eventually using it to aid pain control during surgery. Braid subsequently wrote a book on the subject² entitled 'Neurypnology; or, the rationale of nervous sleep, considered in relation with animal magnetism' in which he tried to re-define animal magnetism and coined the term 'hypnotism'. Although this term has now been almost universally adopted, the descriptors 'mesmerism' and 'animal magnetism' are still occasionally used even today. Braid, as had others before him, also completely rejected the concept of any form of magnetism being involved, believing that the phenomenon was based more on suggestibility.

John Elliotson (1791–1868), a professor of medicine based at University College Hospital in London, also became intrigued by the therapeutic application of hypnosis and started to use the technique in his practice. Unfortunately, despite obtaining good results, he faced mounting hostility from his colleagues, which ultimately led to him resigning from the hospital and continuing to practice on a private basis. However, in other countries a number of notable individuals such as Liebeault (1823–1904), Bernheim (1840–1919), Charcot (1825–1893) and Janet (1859–1947) helped to maintain interest in the subject even though, during this time, the introduction of anaesthetics dealt another serious blow to its popularity. Sigmund Freud (1836–1939) also studied hypnosis but subsequently denounced its use and, because he was such an influential figure, this had a considerable negative impact on its credibility. Interestingly, there are several suggestions in the literature that one reason why Freud gave up hypnosis was because he was not a particularly competent hypnotherapist, although this obviously cannot be confirmed.

The mixed fortunes of hypnosis continued until the First World War when it went through yet another revival as a result of being used to treat shell shock victims with apparent success. During the Second World War it served a similar purpose in the treatment of what is now known as post-traumatic stress disorder.

Clarke Hull (1884–1952) is frequently credited as one of the first investigators to undertake a modern, systematic approach to hypnosis research and other notorious figures of a similar vintage were Milton Erickson (1901–1980) and Ernest Hilgard (1904–2001). Hilgard will probably be particularly remembered for his role in developing, with Weitzenhoffer, the Stanford Hypnotic Susceptibility Scale,³ which even today, is often regarded as the gold standard for such instruments. As a result of the work of individuals such as these, research into hypnosis has become much more legitimate and is now the province of a wide range of biomedical scientists.

THERAPEUTIC USE OF HYPNOSIS

Hypnosis has never fallen within the remit of any one particular group of healthcare providers. It might be expected that those trained in psychology or psychiatry would be familiar with its use but a surprisingly large proportion of such individuals have absolutely no experience of the phenomenon. Conventional medical practitioners are often very wary of the technique, even more suspicious of their colleagues who use it and extremely reticent to refer patients for treatment by non-medical practitioners. Consequently, this gap in provision is often filled by therapists from a whole variety of backgrounds some of whom may have little or no knowledge of human biology, physiology or psychology. As a result, hypnosis is often relegated to being used for borderline indications such as weight loss, smoking cessation, phobias and anxiety rather than trying to help more mainstream medical disorders. Furthermore, enthusiasts for hypnotherapy often grossly over-estimate its potential and, as is often seen with other 'fringe' techniques, seem to advocate its use to the exclusion of other conventional approaches. This is regrettable as the technique might well be beneficial in a large number of different diseases as long as it is used within the context of a full treatment package. Unfortunately, systematic research on efficacy has been distinctly lacking with many claims for its utility in a variety of conditions being largely anecdotal. It seems

unlikely that this situation will change substantially unless hypnotherapy is incorporated into routine medical service provision, allowing its use to be submitted to audit or clinical trial and where medical practitioners could feel more comfortable about considering its application.

THE NATURE OF HYPNOSIS

It seems reasonable to assume that a variety of techniques such as meditation, relaxation, aromatherapy, reflexology as well as hypnotherapy share a common underlying mechanism. They probably differ in terms of utilizing different aspects of the relaxation response and hypnosis, in particular, concentrates on inducing trance and using suggestion. In the medical setting, this possibly gives it an advantage over some of the other techniques in that it allows a focus on therapeutic gain rather than a reliance on non-specific improvement as a result of generalized relaxation.

There is a considerable amount of misunderstanding about the hypnotic process, which is embedded in all the folklore that surrounds the subject as well as being reinforced by the antics of stage hypnotists. Patients often need to be reassured that they cannot be hypnotized against their will, their minds are not going to be taken over, they will not lose consciousness or control and they are not going to make fools of themselves. Hypnotizability, or depth, varies widely with approximately 5–10% of individuals being able to achieve deep trance. Fortunately, from a therapeutic standpoint depth is not essential for a good outcome although a stage hypnotist would fail miserably unless he confined himself to high hypnotizables.

The art of inducing hypnosis can cause problems for some medical practitioners although the technique is surprisingly easy to learn. The interaction with the patient is entirely different to that which takes place in the out-patient setting, requires different skills and a lot of time. The therapist does all the talking although with a remarkably restricted repertoire, which is extremely repetitive and does not come easily to the average, conventionally trained physician.

In essence, hypnotherapy relies on inducing a state of relaxation or trance and making suggestions of improvement in whatever condition is being treated. Traditionally, hypnotherapists are inclined to be taught to think about disease mainly in terms of its psychological basis and thus their therapeutic approach is very

much biased in this direction. Furthermore, age regression is frequently used by such practitioners in the hope of identifying events that may have occurred earlier in the patient's life, to which their current problem can supposedly be linked. We have adopted a rather different approach to hypnotherapy where we seek to bring about disease modification in a much more direct way by using what we call gut focused hypnotherapy. This technique aims to specifically normalize any disordered physiological function avoiding too much emphasis on psychological factors although the patient is taught relaxation, ego strengthening and coping skills. Age regression is never used.

GUT FOCUSED HYPNOTHERAPY

This technique is primarily aimed at returning gastrointestinal function to normal thus, before embarking on treatment, it is helpful if the patient has some understanding of normal physiology and how this might be disturbed in irritable bowel syndrome (IBS). During a session, hypnosis is induced using any of the standard procedures and a reasonable level of depth achieved. Suggestions for improvement of symptoms are made on a repetitive basis and, for some reason, it seems helpful if these are repeated three times. For example, 'no pain, no bloating and a normal bowel habit' or 'pain becoming less and less and less troublesome' or 'your IBS will become better and better and better'. Many patients with IBS suffer from a variety of extra-colonic symptoms such as backache and lethargy and suggestions for the improvement of these problems should also be specifically introduced. Thus, tailoring the therapy to the patient's symptomatology is very important. Metaphors are also used for bringing about improvement and we have found that drawing an analogy between the gut and a river is particularly beneficial with the patient then able to envisage the flow being controlled according to their needs. Another approach is to ask the patient to place a hand on their abdomen, feel warmth and relate this sensation to control over gut function and the reduction of pain. Patients easily identify with this as it is customary for an individual to rub their abdomen or use a warm object, such as a hot water bottle, in order to try and relieve their pain. Sometimes patients have their own disease imagery and it is perfectly reasonable to work with this rather than necessarily be too prescriptive.

The first two sessions of treatment are devoted to just getting the patient familiar with the hypnotic process. Focusing on the gut is introduced during session three and the patient is given an audio-tape or disc with which to practise at home. The importance of practise cannot be over-emphasized and ideally should take place on a daily basis. For the purposes of monitoring progress it is helpful to score symptoms on a regular basis and our symptom severity scoring system⁴ is ideal for this purpose. It is also useful for monitoring the performance of individual therapists as well as facilitating audit, which is particularly important in this field where it is essential to have confirmation of effectiveness.

HYPNOTHERAPY FOR IBS

We would like to think that our group in Manchester was the first to seriously advocate the use of hypnotherapy for IBS. However, although we were certainly the first to undertake a randomized trial of its use in this condition, as far back as 1927, Jacobson⁵ was describing the beneficial effects of progressive relaxation in such patients. Despite the fact that he did not specifically mention the term hypnosis, he was almost certainly using a closely allied technique.

Our controlled trial was published in 1984 and compared the effect of seven 30-min sessions of gut focused hypnosis or supportive therapy plus placebo medication in patients with IBS.⁶ Fifteen patients were allocated to each group and at the end of 3 months, patients in the hypnotherapy group were significantly better than controls in terms of abdominal pain, distension, bowel dysfunction and general well-being. This result was subsequently reproduced in a further controlled trial,⁷ although the principal aim of this study was to investigate the effect of hypnotherapy on gastrointestinal sensitivity (*vide infra*). As time has gone by, we have found that it is often necessary to provide 12 sessions of treatment to gain maximum benefit so that is what we now routinely offer. In 1996 we reported on a further cohort of patients, comparing their progress with a group of waiting list controls.⁸ This study not only confirmed our previous findings, but also identified some additional advantages. These included the fact that extra-colonic symptoms also tended to improve and this was accompanied by a positive effect on quality of life and a reduction in consultation behaviour. Absenteeism from work was much reduced,

with patients who had been off work because of their IBS returning to work and those who were at work, taking much less sickness leave. These results encouraged us to establish a formal hypnotherapy service staffed by six therapists for which we have recently published an audit of the first 250 patients treated.⁹ Using our scoring system,⁴ we compared scores before and after treatment, which revealed highly significant improvements in abdominal and extra-colonic symptoms as well as quality of life, anxiety and depression. Consultations with both general practitioners and hospital specialists fell considerably and there was a dramatic reduction in the use of medication. Our results have been reproduced by others¹⁰⁻¹⁴ and this literature has recently been the subject of a systematic review,¹⁵ which concluded that this is an effective form of treatment for IBS. However, some of these studies were not controlled and others are rather old or do not conform to modern design standards and have undoubtedly been undertaken by enthusiasts. Thus some sceptics will continue to claim that the evidence is not conclusive and more trials are needed. Unfortunately this is a technique that is exceptionally operator dependent and there is no question that not all therapists are of equal competency. This would present problems in conducting any future large scale, multi-centre trials where ensuring the treatment was as uniform as that seen during drug trials would be difficult, although not impossible.

Even if hypnotherapy is effective in the short-term this would be insufficient reason to recommend its more widespread use unless the beneficial effects are sustained. It would be nonsensical to offer this approach if patients needed indefinite treatment to keep them well as this would never allow any new patients to be taken into a particular programme. Similarly, this would not be a worthwhile treatment if the beneficial effects were lost once the course of treatment had been completed. We have assessed the long-term benefits of hypnosis in IBS¹⁶ and found that 83% of original responders remain well between 1 and 5 years following their original course of treatment. In addition, their medication needs and consultations with either specialists or general practitioners became dramatically reduced.

HYPNOTHERAPY FOR FUNCTIONAL DYSPEPSIA

We have also evaluated the role of hypnotherapy in functional dyspepsia.¹⁷ In this study, patients were

randomized into three treatment groups receiving either 12 sessions of hypnotherapy or an equal time of supportive therapy coupled with regular ranitidine or usual medical care. Following treatment, the hypnotherapy group were significantly more improved than the other two groups and this benefit was maintained during the follow-up period of 12 months. At the end of the follow-up period, not a single patient in the hypnotherapy group had resorted to any drug treatment whereas 82% and 90% of patients in the other two groups respectively, were back on some form of medication. Consultations were also reduced in the hypnotherapy group compared with the other two comparator groups.

MECHANISM OF ACTION OF HYPNOTHERAPY

There must undoubtedly be a considerable non-specific placebo effect from attending a hypnotherapy unit and having up to 12 sessions of intensive treatment. However, there is evidence that other psychological as well as physiological changes also take place.

Psychological factors

Cognitive function. Patients with IBS tend to have rather negative cognitions about their disorder and an instrument called The Cognitive Scale for Functional Bowel Disorders¹⁸ has been developed in order to quantify this. We have administered this scale before and after a course of treatment to a group of 78 patients undergoing hypnotherapy for their IBS¹⁹ and found that all but one of the 11 domains in this score significantly improved with the overall score improving by approximately 25%. This result is of interest because the hypnotherapeutic package that we offer does not particularly concentrate on any form of cognitive restructuring so the patient is presumably developing this skill spontaneously.

Anxiety and depression. In all our studies except the first trial, we have administered the hospital anxiety depression²⁰ scale to patients before and after treatment. This is a screener for these traits rather than being an in-depth assessment resulting in a specific psychiatric diagnosis. However, it is very simple to use and quick to complete and has been shown to be a robust instrument for use in the non-psychiatric setting. We find that the level of anxiety and depression before treatment is

remarkably stable at approximately 65% and 35% respectively. Following treatment this falls to 35% and 15% and even in those patients whose scores do not exceed the threshold for anxiety or depression, there is still a reduction of their scores following treatment.⁹

Physiological factors

Motor activity. There is considerable debate about the role of motor activity in IBS and it has always been difficult to find a good correlation between different motor events and symptoms. However, it is likely that the threshold at which a contraction causes pain may well be reduced in patients with IBS thus making even normal amplitude contractions be perceived as painful. This presumably explains why antispasmodic medications are effective in some patients and why reducing the strength of contractions is therapeutically worthwhile. We have assessed distal colonic motility during hypnosis and shown a reduction in phasic contractions.²¹ However, we do not have any data on its long-term effects on motility but this result suggests one mechanism by which patients could possibly shorten an episode of pain by utilising self hypnosis. Many patients with IBS report an exacerbation of their symptoms following the ingestion of a meal²² and there is physiological evidence to suggest that this may be, at least in part, related to its lipid content.²³ Thus it might be predicted that a reduction in this reflex might be useful therapeutically. Using duodenal infusion of lipid as a model for the gastro-colonic response, it has been shown that the reaction to this experimental challenge can be reduced by hypnosis.²⁴

Visceral sensation. Visceral hypersensitivity, especially of the rectum is one of the more consistent physiological abnormalities found in IBS²⁵ and some have even claimed that it is a biomarker for the condition. However, this abnormality is not demonstrable in all patients with some having normal sensitivity and a few even exhibiting hyposensitivity. In 1990 we assessed the effect of hypnotherapy on visceral sensation as assessed by a balloon distension.⁷ Sensitivity was recorded before and after a course of hypnotherapy as well as also being measured during a session of hypnosis. Significant reductions in hypersensitivity were observed during hypnosis and in some individuals a continuing improvement was observed after the course of treatment had been completed. Unfortunately,

balloon distension is prone to both patient and operator bias although this drawback has been largely overcome by the advent of the computerized barostat for measuring visceral sensation. We have therefore taken the opportunity of using this technique to assess the effect of hypnosis on visceral sensation in a further cohort of patients²⁶ and confirmed that a significant improvement in hyper-sensitivity occurs which persists following the cessation of treatment. In addition we found a tendency for hyposensitive individuals to experience an increase in sensitivity towards the normal range with patients exhibiting normal sensitivity remaining unchanged. Thus hypnotherapy appears to lead to a 'normalization' of disturbed visceral sensation in patients with IBS.

Central processing. Brain imaging studies have shown a variety of different cortical activation patterns to painful rectal stimuli in patients with IBS compared with controls.²⁷ However, one reasonably consistent finding has been the observation of excessive activation of the anterior cingulate cortex,²⁷ a region where the emotional response to pain is processed. Although somewhat of an over-simplification, it has been shown that a painful somatic stimulus is perceived in the somatosensory cortex and the suffering associated with the pain is processed in the anterior cingulate cortex.²⁸ It is therefore noteworthy that hypnotic reduction of such pain results in normal activation of the somatosensory cortex but reduced activity of the anterior cingulate cortex,²⁸ the very region that is of interest in IBS. Thus, it is tempting to speculate that hypnosis might enable the IBS sufferer to down-regulate the processing of painful gut stimuli as well as providing the other benefits that have already been described.

PROVISION OF HYPNOTHERAPY FOR IBS

Hypnotherapy is time consuming, labour intensive and therefore costly to provide. It should therefore only be reserved for severe IBS and actually, would probably be less successful in milder cases who are unlikely to exhibit the necessary motivation and devotion to practise that is necessary to make the technique work. We have found that, non-medically qualified individuals with either a psychosocial or biomedical training can be suitably trained to provide this service, which obviously helps to reduce costs. Having a team of such therapists

in the hospital setting has many advantages: it adds instant legitimacy and credibility to this form of treatment, the therapists can learn and share experiences with each other and the service can be medically supervised. This medical supervision is important as it gives the therapists immediate access to advice and the opportunity to discuss relevant issues. For instance, as a result of a more prolonged relationship with the therapist, patients sometimes report previously undisclosed symptoms of significance which may require further investigation.

Hypnotherapy only helps a finite number of sufferers with IBS and it is therefore important to have a strategy for dealing with the approximately 25% of individuals who do not respond, especially as they often regard this form of treatment as their last chance of gaining relief from their symptoms. They should not be made to feel like failures but it is obviously necessary for them to be withdrawn from the programme so as to allow other patients to be treated. We manage this situation by providing a specialist nurse who can give continuing support in addition to their usual medical care. However, the patient needs to understand that this part of their care package is more of a palliative nature centred around coping and symptom control rather than necessarily leading to any major improvement of symptoms.

CONCLUSION

Hypnotherapy undoubtedly helps a sizeable proportion of patients with severe IBS and functional dyspepsia and the mechanisms involved are beginning to be understood. The effects of treatment are sustained with cost benefits in terms of reduced medication needs and less absenteeism from work.

With the advent of new techniques of assessing brain activity such as functional magnetic resonance imaging, it seems likely that scientific interest in the phenomenon of hypnosis will continue to grow and that mechanistic research into the subject will flourish. However, its clinical application continues to be inhibited by a variety of prejudices that will probably be more difficult to overcome.

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