Aliment Pharmacol Ther 1996; 10: 91–95.

Symptomatology, quality of life and economic features of irritable bowel syndrome—the effect of hypnotherapy

L. A. HOUGHTON, D. J. HEYMAN & P. J. WHORWELL
Department of Medicine, University Hospital of South Manchester, Manchester M20 2LR, UK

Accepted for publication 28 September 1995

SUMMARY

Aims: The purposes of this study were to quantify the effects of severe irritable bowel syndrome on quality of life and economic functioning, and to assess the impact of hypnotherapy on these features.
Methods: A validated quality of life questionnaire including questions on symptoms, employment and health seeking behaviour was administered to 25 patients treated with hypnotherapy (aged 25–55 years; four male) and to 25 control irritable bowel syndrome patients of comparable severity (aged 21–58 years; two male). Visual analogue scales were used and scores derived to assess the patients' symptoms and satisfaction with each aspect of life.
Results: Patients treated with hypnotherapy reported less severe abdominal pain ($P < 0.0001$), bloating ($P < 0.02$), bowel habit ($P < 0.0001$), nausea ($P < 0.05$), flatulence ($P < 0.05$), urinary symptoms ($P < 0.01$), lethargy ($P < 0.01$), backache ($P = 0.05$) and dyspareunia ($P = 0.05$) compared with control patients. Quality of life, such as psychic well being ($P < 0.0001$), mood ($P < 0.001$), locus of control ($P < 0.05$), physical well being ($P < 0.001$) and work attitude ($P < 0.001$) were also favourably influenced by hypnotherapy. For those patients in employment, more of the controls were likely to take time off work (79% vs. 32%; $p = 0.02$) and visit their general practitioner (58% vs. 21%; $P = 0.056$) than those treated with hypnotherapy. Three of four hypnotherapy patients out of work prior to treatment resumed employment compared with none of the six in the control group.
Conclusion: This study has shown that in addition to relieving the symptoms of irritable bowel syndrome, hypnotherapy profoundly improves the patients' quality of life and reduces absenteeism from work. It therefore appears that, despite being relatively expensive to provide, it could well be a good long-term investment.

INTRODUCTION

Irritable bowel syndrome affects up to one in four of the general population at some time of their lives,[1] and has been shown to account for between 40 and 70% of the gastroenterologists' workload.[2–4]

As well as leading to abdominal pain, distension and a disordered bowel habit, irritable bowel syndrome can give rise to a wide variety of non-colonic symptoms, such as backache, lethargy and urinary symptoms,[5] which can prove to be very intrusive.[6] Furthermore, recent studies have suggested that the disorder can adversely affect quality of life and working capacity, and may lead to time off work.[7,8] Unfortunately despite all these data the condition is still regarded by some as 'non-serious'.

Current conventional treatment for irritable bowel syndrome is far from satisfactory with a large proportion of patients showing no improvement despite multiple therapeutic interventions.[9–11] In contrast, hypnotherapy has been shown to be very effective in the treatment of irritable bowel syndrome with up to 80% of patients showing an improvement in their symptoms.[12–13] However, the effect of hypnotherapy on the quality of life,

Correspondence to: Dr P. J. Whorwell, Department of Medicine, University Hospital of South Manchester, Nell Lane, West Didsbury, Manchester M20 2LR, UK.

economic functioning and non-colonic symptomatology has not been previously assessed, and it was the purpose of this study to address these issues.

PATIENTS AND METHODS

Twenty-five patients with refractory irritable bowel syndrome treated with hypnotherapy 1 year previously (aged 25–55 years; four male) were compared with 25 control irritable bowel syndrome patients (aged 21–58 years; two male) of comparable severity who had been on the hypnotherapy waiting list for a similar length of time as the hypnotherapy patients. Patients are only considered for hypnotherapy if they remain continuously symptomatic despite conventional medical therapy and are considered entirely refractory. The hypnotherapy group was composed of consecutive patients irrespective of their response to treatment (intention to treat). The control patients were taken from the hypnotherapy waiting list as this was considered to be the most appropriate comparative group (i.e. the same selection processes would be applicable to both groups, to ensure that both groups of patients were of comparable severity). A prospective study was considered unethical because it would have involved delay or denial of treatment that patients on the waiting list were actually waiting for. Irritable bowel syndrome was defined as the presence of abdominal pain and distension, together with a disturbance of bowel habit (constipation, diarrhoea or alternating) and normal haematology, biochemistry and sigmoidoscopy (criteria similar to those adopted by the International Irritable Bowel Syndrome Working Party[14]).

Both the hypnotherapy and control patients were asked to complete a validated quality of life questionnaire[15] relating to their experiences over the preceding 3-month period. Questions on classic (abdominal pain, abdominal bloating, bowel habit) and non-colonic[5] irritable bowel syndrome symptomatology were also included. Furthermore, additional data on health seeking behaviour and economic functioning over the preceding 12 months was collected.

In those patients treated with hypnotherapy the classic symptoms of irritable bowel syndrome had been recorded and scored (visual analogue scales) before treatment enabling their severity to be compared with that of the controls.

The quality of life questionnaire consisted of a series of questions giving information on certain aspects of life which were grouped together under six main categories.

1. Psychic well being (coping with problems, confidence, usefulness, security).
2. Physical well being (sleep, energy levels, aches and pains).
3. Mood (irritability, worries, hopefulness and enjoyment of life).
4. Locus of control (control of life, helplessness, ability to make decisions).
5. Social behaviour (relationships with family and partner, ability to maintain friendships, inferiority, wantedness, enjoyment of leisure, financial worries).
6. Work (coping with work, satisfaction with work).

All questions were scored using a visual analogue scale of 0–100 (100 being maximum) and for the quality of life data a mean derived to give a value for each main category.

Hypnotherapy was carried out using a technique based on that previously described by Whorwell *et al.*[12,13] In brief this involved 12 half-hour sessions in which the emphasis of therapy was directed towards the control of gut function rather than just general relaxation. All control patients were under regular follow-up by the same doctor and although not standardized, treatment involved the administration of those measures (antispasmodic, anti-diarrhoeals, bulking agents) which were found to be most beneficial for that particular patient. Following hypnotherapy patients are usually followed up on a yearly basis to assess progress. This study formed part of this process in some subjects but in others additional contact was made.

The Mann–Whitney U-test was used to compare scores between patients treated with and without hypnotherapy. The study had an 80% power of detecting a difference in score of at least 15 units on the visceral analogue scale between the controls and hypnotherapy group.

RESULTS

Irritable bowel syndrome symptomatology

Prior to treatment, irritable bowel syndrome symptom scores in patients subsequently treated with hypnotherapy were not significantly different from those of the controls, though bloating tended to be worse in the hypnotherapy group ($P = 0.078$) (Figure 1). Following

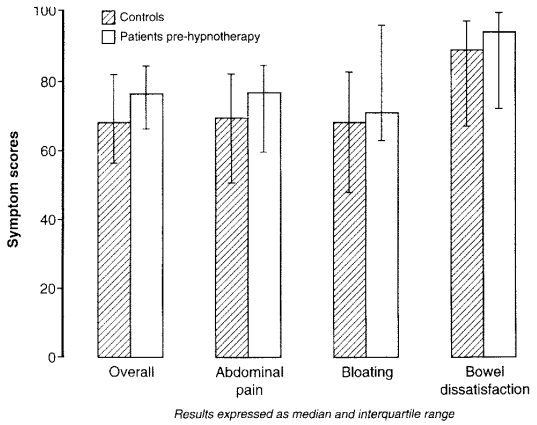

Figure 1. Comparison of the classical symptoms of irritable bowel syndrome in patients pre-hypnotherapy with controls. N.B. Bowel dissatisfaction—an overall assessment by the patient of their bowel function in terms of frequency, consistency and satisfaction.

hypnotherapy, all the classical irritable bowel syndrome symptoms improved (Figure 2). Furthermore when the hypnotherapy group were compared with the control group, the classical symptoms ($P < 0.001$) together with non-colonic symptoms of nausea ($P < 0.05$), flatulence ($P < 0.05$), urinary symptoms ($P < 0.01$), lethargy ($P < 0.01$), backache ($P = 0.05$) and dyspareunia ($P = 0.05$) were significantly less severe (Figure 3).

Quality of life

Figure 4 summarizes the effect of hypnotherapy on the six main categories of quality of life.

Psychic well being ($P < 0.0001$), mood ($P < 0.001$), locus of control ($P < 0.05$) and physical well being ($P < 0.001$) were significantly better in the patients treated with hypnotherapy compared with the controls. The component questions of each main category showed a similar degree of difference, with the overall scores not representing an excessive change in any particular feature. Furthermore, patients treated with hypnotherapy were much more able to cope with work ($P = 0.0008$) and gained much more satisfaction from their work ($P = 0.0052$).

In contrast, there was no significant effect of hypnotherapy on social behaviour and this was reflected in all component questions. It is of interest to note that scores for relationships with family [91 (72–96): median (interquartile range)], partner [88 (76–95)] or friends (76 (64–87)] were so high that it would have been difficult for hypnotherapy to have improved on these values.

Economic consequences

Six of the control patients and four of the hypnotherapy patients prior to treatment had given up work due to their irritable bowel syndrome. Following treatment, all but one of the patients in the hypnotherapy group had resumed work. Thus only one hypnotherapy patient compared with six control patients remained out of work because of their disorder.

Of those patients still working, significantly more of the control patients had time off work (> 1 day per year) due to irritable bowel syndrome (79% vs. 32%; $P = 0.02$): taking up to 90 days (mean 17 days) off work per annum

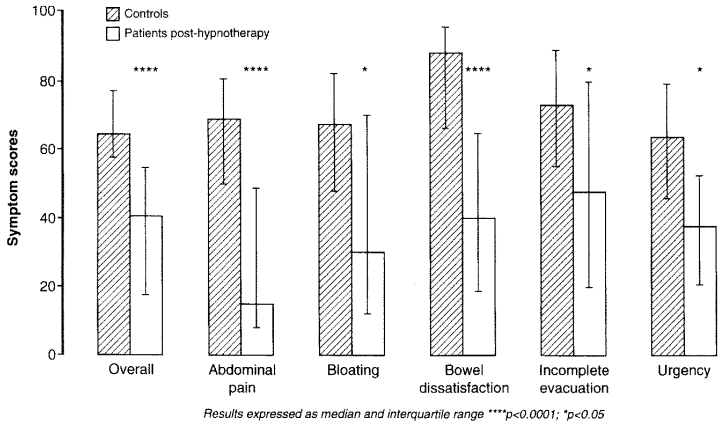

Figure 2. Comparison of the classical symptoms of irritable bowel syndrome in patients after hypnotherapy with controls. N.B. Bowel dissatisfaction—an overall assessment by the patient of their bowel function in terms of frequency, consistency and satisfaction.

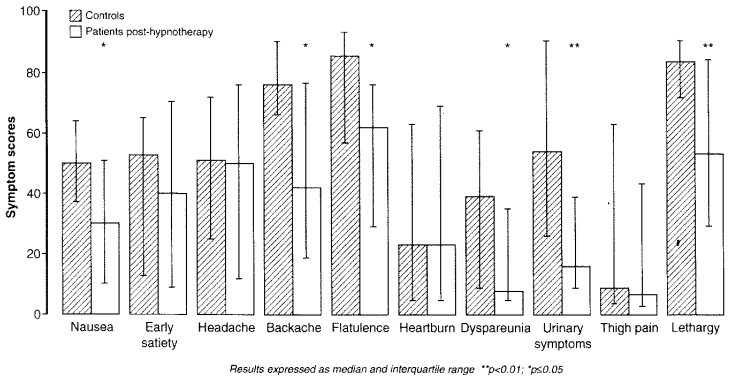

Figure 3. Comparison of non-colonic symptom in patients after hypnotherapy with controls.

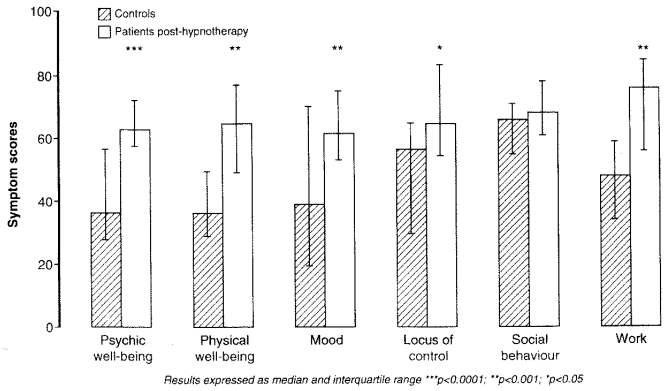

Figure 4. Comparison of various aspects of quality of life in patients with hypnotherapy with controls.

compared with only up to 20 days (mean 2 days; $P = 0.015$) in the patients who had been treated with hypnotherapy. Likewise, more of the control patients consulted their general practitioner about their irritable bowel syndrome on at least one occasion per year than those treated with hypnotherapy (58% vs. 21%; $P = 0.056$). Finally, the number of patients taking time off work for any other illness (68% vs. 67%; hypnotherapy vs. controls) and the number of days spent off work (6 ± 9 vs. 6 ± 11 days per annum; mean $\pm$ s.d.) for illnesses other than irritable bowel syndrome were not significantly different between the two groups.

DISCUSSION

Patients with severe irritable bowel syndrome often fail to respond to the currently available medications[9–11] and are a considerable drain on medical resources, as reflected by multiple consultations and numerous investigations.[16] The results of this study indicate that added to this, severe irritable bowel syndrome has a profound impact on patients' lives as shown by poor quality of life and much absenteeism from work sometimes amounting to cessation of employment altogether. A possible explanation for quality of life being so poor in these patients with severe irritable bowel syndrome is that in addition to suffering abdominal pain and bowel dysfunction they also experience a wide variety of non-colonic symptoms resulting in a perception of generalized poor health.[5] In addition, it has been shown that non-colonic symptoms are just as intrusive as the more classic symptoms of the condition[6] and are notoriously unresponsive to pharmacological intervention. All these observations emphasize the need for more effective therapies for this condition.

Not only do our results confirm the efficacy of hypnotherapy for the abdominal pain and bowel dysfunction of irritable bowel syndrome but for the first time demonstrate it can also ameliorate some of the non-colonic features of the disorder, such as nausea, flatulence, urological symptoms, lethargy, backache and dyspareunia. Hypnotherapy also significantly improved quality

of life, with psychic and physical well being, mood and locus of control all being significantly better than the controls. Social behaviour, such as family relationships, however, was not significantly different and this may be because the control values for this parameter were of an order that would have been hard to improve upon. This confirms the clinical observation that the families of these patients are often very supportive and caring which is in accord with McGee's findings on how patients with irritable bowel syndrome perceive the importance of family values.

Although the unit cost of most medications for irritable bowel syndrome is relatively low they are often prescribed over long periods. Thus medical therapy for this condition is not as cheap as it might at first appear. In addition these patients frequently consult their general practitioners and in severe cases often show a tendency for multiple hospital consultations and investigations. We have previously shown that hypnotherapy reduces the need for medication in these patients[12,13] and this study confirms that consultations are also reduced. Therefore the initial relatively high cost of providing hypnotherapy can soon be recouped. Furthermore, the cost to the community, in terms of sickness benefit, etc., must be substantially reduced by this relatively young group of patients being less absent from work and put back to work, not to mention an increase in job satisfaction and efficiency.

In conclusion, the results of this study should help to encourage the use of hypnotherapy as a practical and cost effective solution for the patient with severe irritable bowel syndrome.

ACKNOWLEDGEMENTS

Dr L. A. Houghton is in receipt of a grant from Glaxo Research and Development Ltd. The authors are grateful to Julie Morris, Senior Statistician, for her statistical advice.

REFERENCES

1 Jones R, Lydeard S. Irritable bowel syndrome in the general population. Br Med J 1992; 304: 87–90.
2 Switz DM. What a gastroenterologist does all day. Gastroenterology 1976; 70: 1048–50.
3 Ferguson A, Sircus W, Eastwood MA. Frequency of functional gastrointestinal disorders. Lancet 1977; ii: 613–4.
4 Harvey RF, Salih SY, Read AE. Organic and functional disorders in 2000 gastroenterology outpatients. Lancet 1983; i: 632–4.
5 Whorwell PJ, McCallum M, Creed FH, Roberts CT. Non-colonic features of irritable bowel syndrome. Gut 1986; 27: 37–40.
6 Maxton DG, Morris JA, Whorwell PJ. Ranking of symptoms by patients with irritable bowel syndrome. Br Med J 1989; 299: 1138–9.
7 McGee HM, O'Boyle CA, Hickey A, O'Malley K, Joyce CRB. Assessing the quality of life of the individual: the SEIQoL with a healthy and a gastroenterology unit population. Psychol Med 1991; 21: 749–59.
8 Drossman DA, Li Z, Andruzzi E, *et al.* U.S. householder survey of functional gastrointestinal disorders. Prevalence, sociodemography and health impact. Dig Dis Sci 1993; 38: 1569–80.
9 Choudhary NA, Truelove SC. The irritable colon syndrome. Quart J Med 1962; 31: 307–22.
10 Waller SL, Misiewicz JJ. Prognosis in the irritable bowel syndrome. Lancet 1969; ii: 753–6.
11 Holmes KM, Salter RH. Irritable bowel syndrome—a safe diagnosis. Br Med J 1982; 205: 1533–4.
12 Whorwell PJ, Prior A, Faragher EB. Controlled trial of hypnotherapy in the treatment of severe refractory irritable bowel syndrome. Lancet 1984; ii: 1232–4.
13 Whorwell PJ, Prior A, Colgan SM. Hypnotherapy in severe irritable bowel syndrome: further experience. Gut 1987; 28: 423–5.
14 Thompson WG, Creed F, Drossman DA, Heaton KW, Mazzacca G. Functional bowel disorders and functional abdominal pain. Gastroenterol Int 1992; 5: 75–91.
15 Dunbar GC, Stoker MJ, Hodges TCP, Beaumont G. The development of SBQOL—a unique scale for measuring quality of life. Br J Med Econ 1992; 2: 65–74.
16 Maxton DG, Whorwell PJ. Use of medical resources and attitudes to health care of patients with 'chronic abdominal pain'. Br J Med Econ 1992; 2: 75–9.