




Patient satisfaction after remotely delivered gut-directed hypnotherapy for irritable bowel syndrome during the COVID-19 era: implications for future practice

Hithin Noble,¹ Syed S Hasan,^{1,2} Victoria Simpson,¹ Peter J Whorwell,^{1,2} Dipesh H Vasant ^{1,2}

To cite: Noble H, Hasan SS, Simpson V, *et al*. Patient satisfaction after remotely delivered gut-directed hypnotherapy for irritable bowel syndrome during the COVID-19 era: implications for future practice. *BMJ Open Gastro* 2022;**9**:e001039. doi:10.1136/bmjgast-2022-001039

Received 30 September 2022
Accepted 13 November 2022



© Author(s) (or their employer(s)) 2022. Re-use permitted under CC BY-NC. No commercial re-use. See rights and permissions. Published by BMJ.

¹Neurogastroenterology Unit, Gastroenterology department, Wythenshawe Hospital, Manchester University NHS Foundation Trust, Manchester, UK

²Division of Diabetes, Endocrinology and Gastroenterology, University of Manchester, Manchester, UK

Correspondence to

Dr Dipesh H Vasant;
dipesh.vasant@manchester.ac.uk

ABSTRACT

Objective Gut-directed hypnotherapy (GDH) is an evidence-based treatment for irritable bowel syndrome (IBS). Adoption of remote GDH has been accelerated by the COVID-19 pandemic. We aimed to evaluate patient experience and satisfaction following remote GDH.

Design On completing 12 sessions of remote GDH via Skype using the Manchester protocol, patients with refractory IBS completed a feedback form on their experience. The proportion reporting positive outcomes ($\geq 30\%$ improvement in global IBS symptoms or abdominal pain, satisfaction, recommendation to family/friends) were compared by patient factors (age, gender, proximity, preferences).

Results Of 52 patients completing the feedback form, 27 (52%) indicated that they would have opted for remote over face-to-face GDH, regardless of the pandemic situation. On a five-point scale (5=easy), patients rated the platform easy-to-use (mean 4.5 ± 0.8) without impairment of communication (mean rating 4.6 ± 0.8). Following remote GDH, 30/52 (58%) reported $\geq 30\%$ global IBS symptom improvement, and 24/52 (46%) reported $\geq 30\%$ pain reduction. 90% would recommend remote GDH to others. Only 39% felt they would have benefitted more from face to face. Those who would have chosen remote GDH regardless of the pandemic were more likely to be satisfied ($p=0.01$). Age, gender and proximity did not influence outcomes, satisfaction and likelihood of recommending remote GDH to others. Difficulties during remote sessions were infrequent in both those that were satisfied, and those that would have preferred face to face.

Conclusion These data support the need to continue developing remote GDH in the post-COVID era but suggest that there is still a role for face-to-face GDH, with patient choice being an important factor.

INTRODUCTION

Irritable bowel syndrome (IBS) is a common disorder of gut–brain interaction (DGBI), characterised by recurrent abdominal pain associated with defaecation, bloating and an altered bowel habit.¹ The estimated

WHAT IS ALREADY KNOWN ON THIS TOPIC

⇒ Gut-directed hypnotherapy (GDH) is an evidence-based treatment for irritable bowel syndrome. Remote delivery via Skype is promising, but its adoption was accelerated during the COVID-19 pandemic without data on patient experience and acceptance.

WHAT THIS STUDY ADDS

⇒ Patient satisfaction with remote GDH is high, especially in those that would have chosen this method of delivery regardless of the pandemic. Ninety per cent would recommend remote GDH to others with similar symptoms, with only 39% feeling that they would have benefited more from face to face.

HOW THIS STUDY MIGHT AFFECT RESEARCH, PRACTICE OR POLICY

⇒ In the post-COVID era, this study suggests that patient preference is an important consideration when deciding on the mode of delivering GDH.

prevalence varies according to the diagnostic criteria used, but is in the order of 10% of the global population.² Despite not being life-limiting, IBS has been reported to reduce health-related quality of life to a greater degree than either diabetes mellitus or end-stage renal disease,³ and the associated impairment on activities of daily living can be to the extent that patients are willing to accept significant risks in return for cure of their symptoms.⁴

While a significant proportion of patients can be managed effectively in primary care, it is estimated that approximately 25% have severe IBS,⁵ which is more likely to be referred to a gastroenterologist, and those with severe IBS are more likely to have psychological comorbidities and a poorer

outcome to sequential drug treatments.⁶ In the absence of widescale access to effective therapies for severe IBS, it is therefore unsurprising that IBS is associated with high direct healthcare costs, estimated to be between £1.3 and £2 billion in the UK alone.⁷

Gut-directed hypnotherapy (GDH) is one of the few treatments, which has evidence base for its beneficial effects in severe, refractory IBS,^{8–11} and is recommended when symptoms have not improved after 12 months of drug treatment, or earlier, if accessible locally, and based on patient preference.¹² As well as its long-term efficacy,¹³ GDH has been shown to have significant socioeconomic benefits.¹⁴ The demand for GDH has recently led to an increasing interest in novel initiatives to upscale access including shorter courses of treatment,¹⁵ group delivery approaches¹⁶ and remote delivery methods.¹⁷ Prior to the COVID-19 pandemic, emergence of video-technology use in healthcare systems allowed GDH to be delivered remotely, and early experience suggested comparable outcomes with face-to-face treatment with 65% of patients achieving response defined by a 50-point reduction in the IBS Symptom Severity Scale.¹⁷ The widescale adoption of remote care and adoption of telemedicine in gastroenterology has been greatly accelerated by the COVID-19 pandemic, a period of time where patients with severe refractory IBS had a significantly higher symptom burden.¹⁸ Due to enforced pandemic restrictions, safety considerations and local hospital policies, all patients receiving GDH for IBS at our centre from March 2020 onwards have been offered treatment remotely via video consultation, with no routine provision for face-to-face treatment.

Telemedicine has many advantages including its cost-effectiveness and time-efficiency and it can reduce barriers to healthcare access especially for those in rural areas, or those with chronic, debilitating symptoms.¹⁹ However, there is no previously published data on patient experience and acceptance of remotely delivered GDH for refractory IBS. We; therefore, evaluated feedback from patients who received remote GDH for refractory IBS during the recovery period following the COVID-19 pandemic.

METHODS

Patient population

Patients who completed 12 sessions of remote GDH for IBS via Skype using the Manchester Protocol²⁰ between May 2021 and May 2022 were invited to complete a patient feedback and satisfaction survey, as part of a service evaluation on their experience of remote GDH. The timing of the service evaluation from May 2021 onwards was important as it coincided with easing of national COVID-19 pandemic restrictions and safety considerations which meant that resumption of face-to-face GDH services became a realistic possibility.

All patients invited to complete the feedback form had a prior diagnosis of refractory IBS, verified by one of two

consultant gastroenterologists in the tertiary neurogastroenterology clinic, and all met the National Institute of Clinical Excellence and British Society of Gastroenterology guidelines to qualify for GDH to treat refractory IBS in the UK National Health Service.¹² On completion of their course of remote GDH via Skype, patients were sent a hyperlink to complete the anonymous online feedback form.

Patient experience and feedback form questionnaire

Patients were invited to complete an anonymous, 14-item feedback questionnaire on patient experience and their opinions, following completion of their course of remote GDH via Skype. The questionnaire incorporated a range of nominal, rating scale, 'yes' or 'no' and open-answer questions. Question themes included simple demographics: age range, gender, geographical distance from treatment centre (ranges in miles), pretreatment preference of face to face versus remote before receiving remote GDH, ease of using remote technology, how helpful (percentage rating) remote GDH was in reducing overall and for specific IBS symptoms, stress levels and quality of life, the advantages and disadvantages of remote GDH, whether or not they feel they would have had additional benefit from face-to-face treatment, and whether or not they would recommend remote GDH to a friend or family member.

The questionnaire included both open and closed questions regarding the advantages and disadvantages of remote GDH. The closed questions were developed in consultation with our hypnotherapy team based on their experience in treating patients during pandemic. The open questions provided patients with the option to provide free-text responses on any other advantages and difficulties experienced with remote GDH.

Data analysis

Anonymous qualitative feedback data on patient experience with remote GDH was collated and inputted onto a Microsoft Excel spreadsheet. To understand which patients reported good experiences and outcomes after remote GDH, and to determine if certain patient groups might have better experiences with remote GDH than others, we compared responses by age range, reported pretreatment preferences (face-to-face or remote preference), and geographical distance from treatment centre.

We considered positive outcomes and experiences, following remote GDH, to be those who rated that remote GDH improved their abdominal pain by $\geq 30\%$, those that reported remote GDH improved their overall IBS symptoms by $\geq 30\%$, those that feel they would not have had further benefit from face-to-face GDH compared with the remote approach that they received, and those that would recommend remote GDH to a family or friend with similar symptoms.

We compared responses between those that had self-reported the above positive outcomes and experiences with remote GDH, compared with those that reported less

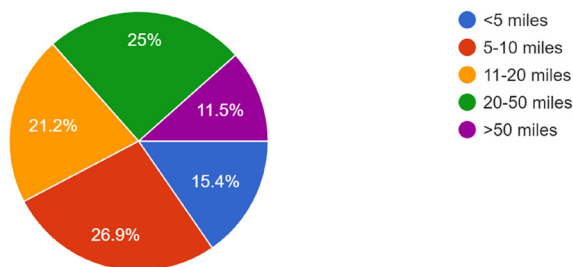


Figure 1 The distance from home residence to the treatment centre of patients completing the feedback questionnaire following remote gut-directed hypnotherapy for irritable bowel syndrome.

favourable outcomes and experiences. The frequency of reported difficulties experienced with remote GDH were compared between patients that felt they would have benefited more from face-to-face therapy, and those that felt they would not have had additional benefits.

Data were analysed and compared using a standard statistical software package where appropriate (Stats Direct V.3.1.1, UK). Mean data are expressed \pm SD. Categorical data were compared by χ^2 test where appropriate, and by Fisher's exact test when the sample sizes were insufficient for χ^2 . P values ≤ 0.05 were considered statistically significant.

RESULTS

Patient demographics

Fifty-two out of 65 patients (80%) with refractory IBS completed the feedback questionnaire after receiving 12 sessions of remote GDH during the survey period. Thirty-six (69.2%) were female and 29/52 (55.8%) aged >41 years (figure 1). Nineteen patients (36.5%) lived greater than >20 miles away from the treatment centre, with 6/52 (11.5%) patients residing over 50 miles from the hospital. Regardless of the pandemic situation, 27/52 (51.9%) of patients indicated that they would have opted for remote, over face-to-face hypnotherapy.

Impact of remote GDH

Patient experience of receiving remote GDH

All 52 patients found the technology relatively easy to use (5-point rating scale where 1=difficult and 5=easy: median 5 (range of responses 3–5), mean 4.5 ± 0.8). Patients generally felt able to communicate their thoughts and concerns clearly with the therapist via Skype (5-point rating scale where 1=difficult and 5=easy: median 5 (range of responses 2–5), mean 4.6 ± 0.8).

Reported benefits after remote GDH

Most (48/52, 92.3%) reported that remote hypnotherapy improved their overall IBS symptoms to some extent (figure 2). Thirty patients (57.7%) reported $\geq 30\%$ overall improvement in IBS symptoms and 24/52 (46.2%) reported $\geq 30\%$ improvement in abdominal pain following GDH. Most patients reported improvements in stress levels (49/52, 94.2%) and quality-of-life (46/52, 88.5%) after completing remote GDH. While 47/52 (90.3%) would recommend remote GDH via Skype to a friend or family member with similar symptoms, and only 38.5% (20/52) felt they would have benefited more from face-face hypnotherapy.

Perceived advantages of remote GDH

Most patients, 48/52 (92.3%) acknowledged that the technology enabled delivery remotely during the pandemic. The main advantages of remote hypnotherapy from a patient perspective were convenience, reduced travel costs, and improved access (table 1). In addition, 16 patients provided free-text comments on other advantages of remote GDH (summarised in word cloud, figure 3).

Difficulties experienced with remote GDH

The main difficulties most frequently encountered with remote GDH included: interruptions due to poor Wi-Fi internet connectivity (17/52, 32.7%), in-home interruptions (16/52, 30.8%), difficulties logging into Skype (12/52, 23.1%) or limitations of the in-home environment/lack of space to practice GDH (7/52, 13.5%). In addition, 10 patients provided free-text comments on

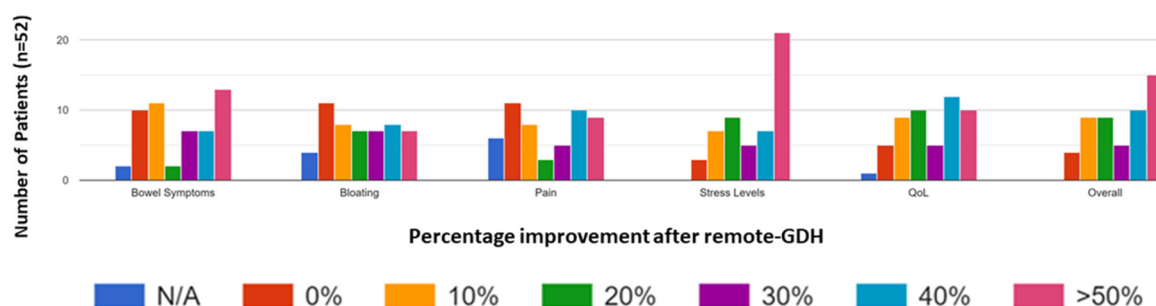


Figure 2 Patient reported percentage improvement after remote gut-directed hypnotherapy in treating symptoms, overall, stress levels and quality-of-life. GSH, gut-directed hypnotherapy; NA, not applicable.

Table 1 Patient reported main advantages of remotely delivered gut-directed hypnotherapy via Skype

Advantage	No (%)
Enabled treatment during pandemic	48 (92.3)
Convenience	40 (76.9)
Reduces travel costs and expenses	38 (73.1)
Improves access to treatment	36 (69.2)
There are no advantages of Skype treatment	0 (0)

other difficulties which they experienced with remote GDH (summarised in word cloud, [figure 4](#)).

Profiles of patients that had positive experiences and outcomes

Patient-reported outcomes (proportion reporting $\geq 30\%$ benefit overall or $\geq 30\%$ improvement in abdominal pain), and whether patients would recommend remote GDH to a family or friend, did not significantly differ by gender distribution, age profile, proximity from residence to the treatment centre. However, patients who would have chosen remote GDH regardless of the pandemic situation were significantly more likely to be satisfied with the outcome of remote GDH ($p=0.01$, [table 2](#)).

Difficulties experienced during remote GDH by those that would have preferred face-to-face therapy

There were no significant differences in the frequency of difficulties encountered by those that would have preferred face to face (Wi-Fi connectivity, in-home interruption, environment/lack of space, difficulties logging in), compared with those that were satisfied with the outcome of remote GDH ([table 3](#)).

DISCUSSION

Overall, the results of this study illustrate that patients with refractory IBS perceive remote GDH, via Skype, to be an effective and well-received treatment option in the aftermath of the COVID-19 pandemic. The data suggest that 61% of those that undergo remote GDH in this context are satisfied with the outcome to the extent that they



Figure 4 Word cloud summarising patient free-text comments on other disadvantages of remote gut-directed hypnotherapy.

did not feel that they would have had additional benefit from face to face. Moreover, most patients who received remote GDH via Skype would recommend remote GDH to a friend or family member with similar symptoms. The patient experience data, therefore, provide a valuable insight into the further development of remote GDH services, and the future role of face-to-face GDH.

The findings of our study are likely to have importance for planning GDH services in the post COVID-19 era. The 80% response rate to the survey is strong, and therefore, the feedback data are likely to be representative of the population evaluated. Interestingly, and of importance for service providers, regardless of the pandemic situation, just over half the patients indicated that they would have preferred remote GDH via Skype over face-to-face treatment. This novel finding suggests that there is likely to be a demand and acceptance for remote GDH in the post-COVID-19 era. Patients reported that remote GDH using Skype was easy to use and found it easy to communicate with their therapist via this platform. All patients indicated that remote GDH had some advantages. While over two-thirds of patients felt that remote GDH improved their access to treatment, approximately three-quarters found the remote approach convenient, with reduced travel costs and related expenses. These advantages of



Figure 3 Word cloud summarising patient free-text comments on other advantages of remote gut-directed hypnotherapy.

Table 2 Differences in the proportions of patients that reported positive outcomes to gut-directed hypnotherapy (GDH) by demographics and pretreatment preferences

Patient factors	≥ 30% improvement overall symptoms	≥ 30% improvement in abdominal pain	Patient reported would not have had further benefit from face-to-face	Would recommend remote GDH to friend/family member with similar symptoms
Gender distribution (females vs males)	22/36 (61%) vs 8/16 (50%), p=0.66	19/36 (53%) vs 5/16 (31%), p=0.26	20/36 (56%) vs 12/16 (75%), p=0.31	31/36 (86%) vs 16/16 (100%), p=0.15
Age group (>41 vs <41 years)	17/29 (59%) vs 13/23 (57%), p>0.99	12/29 (41%) vs 12/23 (52%), p=0.62	19/29 (66%) vs 13/23 (57%), p=0.71	27/29 (93%) vs 20/23 (87%) p=0.50
Preference for remote GDH at outset vs those that would have opted for face to face	15/27 (56%) vs 15/25 (60%), p=0.97	12/27 (44%) vs 12/25 (48%), p>0.99	21/27 (78%) vs 11/25 (44%), p=0.01*	26/27 (96%) vs 21/25 (84%), p=0.18
Distance from treatment centre >20 miles to residence vs those that live <20 miles away	11/19 (58%) vs 19/33 (58%), p=0.98	8/19 (42%) vs 16/33 (48%), p=0.66	10/19 (53%) vs 22/33 (67%), p=0.32	18/19 (95%) vs 29/33 (88%), p=0.64

the remote approach are important when considering that over one-third of patients resided >20 miles away from the treatment centre. Travelling may be extremely difficult for those with severe IBS with diarrhoea, urgency and in some cases faecal incontinence. These debilitating bowel symptoms could understandably potentially limit access to face-to-face treatment for a proportion of those with refractory IBS, who would otherwise be good candidates for GDH. This was corroborated by patient free-text comments in the survey whereby patients reported that offering the option of remote treatment, reduced the 'stress and anxiety of travelling', which could potentially undermine the efficacy of GDH, especially as GDH is an intervention with a core-focus of instilling a state of deep relaxation.

While there were no clear predictive demographic factors for positive experiences and outcomes from remote GDH, it is clear from our data that patient choice is an important factor. Those that would have chosen remote GDH, regardless of the pandemic, were significantly more likely to be satisfied with the outcome, and less likely to have felt they would have benefited more from face-to-face GDH. The exact reasons why approximately half of the patients would have preferred face-to-face treatment regardless of the pandemic, and the others would have preferred remote regardless, are unclear.

This should be the subject of future study. Patient age did not appear to be a factor in our study, with no suggestion of a technology gap across older generations acting as a barrier to benefit from remote GDH via Skype. However, it is possible that some patients do not like the idea of telemedicine for fear of security issues on platforms and the absence of face-face contact and physical examinations.²¹

Interestingly, symptom responses did not differ according to patient preferences for mode of delivery. While it would be worth confirming these findings in future studies with larger sample sizes, this is consistent with the literature on patient perceptions²² and satisfaction²³ with face-to-face GDH, which have suggested that focusing on symptom responses only does not fully capture the patients experience of treatment. Based on our findings and the existing literature, it is not possible to know whether those who felt they would have had additional benefit from face to face would have had a greater symptomatic benefit. Indeed, the aforementioned studies on face-to-face GDH have shown that patient expectations of a positive outcome²² and patient satisfaction²³ do not necessarily influence symptom responses.

Telemedicine, has already been shown to have major potential within gastroenterology as a whole, and within DGBI practice.²⁴ It is therefore important to optimise the patient experience based on the findings of this study

Table 3 Frequency of difficulties experienced with remote GDH overall, and in those that felt they would have, compared with those that felt they would not have, benefited more from face-to-face therapy

Difficulties experienced with remote GDH	Overall (n=52)	Those that felt they would have benefited more from face to face (n=20)	Those that felt they would not have benefited more from face to face (n=32)	P value
Interruptions due to Poor WiFi connectivity	17/52 (33%)	3/20 (15%)	14/32 (44%)	0.06
In-home interruptions	16/52 (31%)	9/20 (45%)	7/32 (29%)	0.15
In-home environment/lack of space to practice	7/52 (13%)	3/20 (15%)	4/32 (13%)	>0.99
Difficulty logging into delivery platform	12/52 (23%)	5/20 (25%)	7/32 (22%)	>0.99
GDH, gut-directed hypnotherapy.				

to unlock its full potential. Despite the existing well-documented evidence base for GDH²⁰ and endorsement from National Institute for Health and Care Excellence as a recommended treatment for medically refractory IBS,¹² GDH is still not widely available. The reasons for this appear to be multifactorial, including the financial strain on the healthcare systems, limited understanding among healthcare professionals, as well as the overall stigma and negative connotations surrounding both IBS,²⁵ and gut-specific behavioural interventions in general. However, as highlighted by our data, remote GDH has the potential to widen access over a larger geographical area, and effectively treat more patients, in a safe, convenient and efficient way. Beyond its cost-effectiveness, convenience and personal preference expressed by the patient, the intervention has further benefits. For instance, Skype GDH allows for the regular, remote, monitoring of refractory IBS patients, providing personalised strategies to deal with their individual symptom burdens, and henceforth the potential to reduce hospital waiting times, and direct healthcare costs such as emergency admissions and the reliance on expensive pharmacological interventions.

A previous study from our group has shown that remote GDH for IBS has comparable, although slightly lower, clinical efficacy to face-to-face therapy with 65% response rate using validated clinical outcome measures, compared with 76% response with face to face.¹⁷ Forty-six per cent of patients reported that $\geq 30\%$ improvement in abdominal pain in this study is very similar to the 44% reported in the previous Skype remote GDH study.¹⁴ However, a limitation of our survey is that this was a service evaluation and patient feedback study on experience and opinions after completing remote GDH, rather than a head-to-head clinical study with face-to-face therapy using validated clinical outcome measures. Therefore, the symptom data while helpful in understanding patient satisfaction, patient-reported outcomes and perspectives, are not directly comparable with studies using validated clinical outcome measures. Moreover, as the data were all collected at the end of treatment, potential recall bias cannot be eliminated. Furthermore, while most patients reported improvements in quality of life after remote GDH, use of a formal quality-of-life questionnaire was beyond the remit of the service evaluation. Finally, a further limitation of our study is that 20% of patients that completed remote GDH during the study period did not complete the feedback form, and therefore, we cannot eliminate that this could have affected the results of the survey.

While the qualitative and patient feedback data from this study will undoubtedly be helpful, a large, randomised controlled trial of face to face compared with remote GDH, currently being conducted in the Netherlands (NCT03899779), is eagerly anticipated and will be necessary to confirm the relative efficacy of the two interventions.²⁶ Until then, it is likely that both face-to-face GDH and remote GDH via video consultation will both have a place in clinical practice.

Remote GDH via Skype is effective and an acceptable mode of delivery for 61% of patients with refractory IBS. Our data have shown that patients' choice over mode of delivery, affects satisfaction with GDH. In the post-COVID era, factors including patient preference, convenience, distance of travel, suitability for remote therapy including WiFi connectivity access, in-home environment including potential for interruptions and space, should be taken into consideration during patient centred clinical discussions, when deciding on the mode of delivering GDH.

Acknowledgements The authors would like to acknowledge Mr William Fowler and Mrs Pamela Cruickshanks clinical hypnotherapists and the patients that took the time to complete the feedback forms anonymously.

Contributors HN was involved with study design, data collection, analysis and drafted the manuscript, SSH helped with data collection and reviewed the manuscript, VS was involved with data collection, co-ordination and administration, DHV helped with analysis and interpretation, supervised the study, helped write the manuscript and is the guarantor.

Funding The authors have not declared a specific grant for this research from any funding agency in the public, commercial or not-for-profit sectors.

Competing interests None declared.

Patient consent for publication Not applicable.

Ethics approval As this was a completely anonymous service evaluation of patient experience with our existing remote GDH clinical service, without collection of any identifiable patient information, formal ethical approval was not required, and this was verified using the University of Manchester research ethics tool.

Provenance and peer review Not commissioned; externally peer reviewed.

Data availability statement Data are available on reasonable request.

Open access This is an open access article distributed in accordance with the Creative Commons Attribution Non Commercial (CC BY-NC 4.0) license, which permits others to distribute, remix, adapt, build upon this work non-commercially, and license their derivative works on different terms, provided the original work is properly cited, appropriate credit is given, any changes made indicated, and the use is non-commercial. See: <http://creativecommons.org/licenses/by-nc/4.0/>.

ORCID iD

Dipesh H Vasant <http://orcid.org/0000-0002-2329-0616>

REFERENCES

- 1 Lacy BE, Mearin F, Chang L, et al. Bowel disorders. *Gastroenterology* 2016;150:e5:1393–407.
- 2 Oka P, Parr H, Barberio B, et al. Global prevalence of irritable bowel syndrome according to Rome III or IV criteria: a systematic review and meta-analysis. *Lancet Gastroenterol Hepatol* 2020;5:908–17.
- 3 Gralnek IM, Hays RD, Kilbourne A, et al. The impact of irritable bowel syndrome on health-related quality of life. *Gastroenterology* 2000;119:654–60.
- 4 Goodoory VC, Ng CE, Black CJ, et al. Willingness to accept risk with medication in return for cure of symptoms among patients with Rome IV irritable bowel syndrome. *Aliment Pharmacol Ther* 2022;55:1311–9.
- 5 Drossman DA, Chang L, Bellamy N, et al. Severity in irritable bowel syndrome: a Rome Foundation working team report. *Am J Gastroenterol* 2011;106:1749–59.
- 6 Goodoory VC, Mikocka-Walus A, Yiannakou Y, et al. Impact of psychological comorbidity on the prognosis of irritable bowel syndrome. *Am J Gastroenterol* 2021;116:1485–94.
- 7 Goodoory VC, Ng CE, Black CJ, et al. Direct healthcare costs of Rome IV or Rome III-defined irritable bowel syndrome in the United Kingdom. *Aliment Pharmacol Ther* 2022;56:110–20.
- 8 Black CJ, Thakur ER, Houghton LA, et al. Efficacy of psychological therapies for irritable bowel syndrome: systematic review and network meta-analysis. *Gut* 2020;69:1441–51.
- 9 Vasant DH, Hasan SS, Cruickshanks P, et al. Gut-focused hypnotherapy for children and adolescents with irritable bowel syndrome. *Frontline Gastroenterol* 2021;12:570–7.

- 10 Miller V, Carruthers HR, Morris J, *et al.* Hypnotherapy for irritable bowel syndrome: an audit of one thousand adult patients. *Aliment Pharmacol Ther* 2015;41:844–55.
- 11 Sasegbon A, Hasan SS, Whorwell PJ, *et al.* Experience and clinical efficacy of gut-directed hypnotherapy in an Asian population with refractory irritable bowel syndrome. *JGH Open* 2022;6:447–53.
- 12 Vasant DH, Paine PA, Black CJ, *et al.* British Society of gastroenterology guidelines on the management of irritable bowel syndrome. *Gut* 2021;70:1214–40.
- 13 Gonsalkorale WM, Miller V, Afzal A, *et al.* Long term benefits of hypnotherapy for irritable bowel syndrome. *Gut* 2003;52:1623–9.
- 14 Houghton LA, Heyman DJ, Whorwell PJ. Symptomatology, quality of life and economic features of irritable bowel syndrome-the effect of hypnotherapy. *Aliment Pharmacol Ther* 1996;10:91–5.
- 15 Hasan SS, Whorwell PJ, Miller V, *et al.* Six vs 12 sessions of Gut-focused hypnotherapy for irritable bowel syndrome: a randomized trial. *Gastroenterology* 2021;160:2605–7.
- 16 Gillan C. Review article: the effectiveness of group and self-help hypnotherapy for irritable bowel syndrome and the implications for improving patients' choice and access to treatment. *Aliment Pharmacol Ther* 2021;54:1389–404.
- 17 Hasan SS, Pearson JS, Morris J, *et al.* SKYPE hypnotherapy for irritable bowel syndrome: effectiveness and comparison with face-to-face treatment. *Int J Clin Exp Hypn* 2019;67:69–80.
- 18 Noble H, Hasan SS, Whorwell PJ, *et al.* The symptom burden of irritable bowel syndrome in tertiary care during the COVID-19 pandemic. *Neurogastroenterology Motil* 2022;34:e14347.
- 19 Kichloo A, Albosta M, Dettloff K, *et al.* Telemedicine, the current COVID-19 pandemic and the future: a narrative review and perspectives moving forward in the USA. *Fam Med Community Health* 2020;8:e000530.
- 20 Vasant DH, Whorwell PJ. Gut-focused hypnotherapy for functional gastrointestinal disorders: evidence-base, practical aspects, and the Manchester protocol. *Neurogastroenterol Motil* 2019;31:e13573.
- 21 Aguila EJT, Cua IHY. Adapting digital technology to the gastroenterology and endoscopy practice in the pandemic era. *Advances in Digestive Medicine*;4.
- 22 Donnet A-S, Hasan SS, Whorwell PJ. Hypnotherapy for irritable bowel syndrome: patient expectations and perceptions. *Therap Adv Gastroenterol* 2022;15:17562848221074208.
- 23 Lindfors P, Ljótsson B, Björnsson E, *et al.* Patient satisfaction after gut-directed hypnotherapy in irritable bowel syndrome. *Neurogastroenterol Motil* 2013;25:169–86.
- 24 Soon CY, Pollard C, Whorwell PJ, *et al.* Insights into the holistic needs of patients with functional gastrointestinal disorders via a nurse-led neurogastroenterology helpline service. *Gastroenterol Nurs* 2021. doi:10.1097/SGA.0000000000000647. [Epub ahead of print: 21 Oct 2021].
- 25 Hearn M, Whorwell PJ, Vasant DH. Stigma and irritable bowel syndrome: a taboo subject? *Lancet Gastroenterol Hepatol* 2020;5:607–15.
- 26 ICHGCP. Face-To-Face versus online hypnotherapy for the treatment of irritable bowel syndrome, according to a non-inferiority design. Three-armed randomized controlled trial