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Practitioners' experiences of using Gut Directed Hypnosis for irritable bowel syndrome: Perceived impact upon client wellbeing: A qualitative study

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ABSTRACT

Gut Directed Hypnosis (GDH) is a specialised form of hypnotherapy originally developed to reduce gastrointestinal (GI) symptoms in individuals with Irritable Bowel Syndrome (IBS). IBS is a condition characterised by symptoms including bloating, abdominal pain and diarrhoea and/or constipation as well as psychosocial symptoms such as depression and anxiety. Although the specific mechanism of action remains unclear, it is suggested that GDH works on the brain-gut axis to improve GI symptoms, psychological functioning and overall wellbeing. The present study aimed to expand upon the knowledge surrounding GDH by exploring practitioners' experiences of using GDH for IBS and their perceptions of how it impacts upon client wellbeing. Six practitioners trained in GDH participated in one hour semi-structured interviews. Thematic Analyses (TA) was used to analyse data. Three major themes emerged from data including: predisposing personality traits and vulnerabilities associated with IBS; GDH as evidence-based practice; and the future evolution of GDH. The findings from this study add to the growing body of literature exploring the use of GDH for IBS, by incorporating the perspective of practitioners working within this field.

1. Introduction

While the aetiology of Irritable Bowel Syndrome (IBS) is poorly understood, evidence suggests that psychological factors play an important role in its onset, severity, and duration.[1] One treatment that has shown to be effective in improving quality of life among individuals with IBS is Gut Directed Hypnosis (GDH).[2,3] The term Gut-Directed Hypnotherapy was coined in the 1980's by Professor Peter Whorwell, gastroenterologist and hypnotherapy advocate, after it was found to improve GI symptoms as well as psycho-social symptoms of IBS.[4] GDH is a specific form of hypnotherapy developed for IBS using therapeutic qualities of hypnotherapy while adding gut specific treatments and suggestions. This form of hypnotherapy is designed to treat all symptoms of IBS. Prior research has indicated that GDH for IBS is associated with positive outcomes in bowel- related symptoms [2,3] and may also influence well-being.[2,3] Despite this, GDH is yet to be widely accepted by mainstream healthcare systems.[4] Aside from a small number of studies that have explored the lived experiences and perspectives of individuals with IBS who have undergone GDH, much of the research within this area has relied upon quantitative methodology. Furthermore, no research to date has explored practitioners' experiences. The present study aimed to expand upon the knowledge surrounding GDH by exploring practitioners' experiences of using GDH for IBS and their perceptions of how it impacts upon client wellbeing.

2. Literature review

IBS impacts between 10 % and 15 % of the population [5] with a significant number of patients being effectively treated in primary care.[6] Failure to respond to standard treatment often results in patient referrals to secondary and tertiary care. Consequently, these patients tend to experience more severe symptoms, are more difficult to manage,[7] express poorer quality of life and place a greater burden on healthcare resources.[8]

This group of refractory patients present a therapeutic dilemma which can lead to reciprocal frustration between physician and patient. Further investigation frequently returns 'normal' results, fuelling feelings of helplessness regarding treatment of symptoms.

Research suggests that many IBS sufferers also have comorbid psychological conditions, the most common psychiatric diagnosis in IBS

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being mood disorders (dysthymic disorder and major depression), somatoform disorders and anxiety disorders.[9] Psychological distress is seen more often in IBS patients than in the general population.[10] It has also been found that in patients with psychiatric disorders, IBS symptoms are more frequently reported than in the general population. In a community study, IBS was 4.7 times more common among patients with Generalized Anxiety Disorder than in the general population.[10] One case control study linked stress, psychological and emotional trauma, and sexual abuse to the onset of IBS with childhood abuse reported as present in up to 50 % of patients.[11] It is, however, acknowledged that caution should be taken in using a case-control study to identify the prevalence of a condition or risk factor as there is likely to be selection bias. These findings support the notion that psychological interventions in conjunction with various treatments aimed at treating the gut will be most effective in reducing or eliminating the physiological and psychological symptoms of IBS.

One psychological-based intervention that has been shown to be effective for IBS is GDH. Over the past 30 years, research has shown GDH to not only positively impact a variety of GI processes, but also to reduce anxiety and depression and improve cognitive functioning.[7] Hypnotisability has been found to not affect outcome.[4] Research findings from clinical trials [12] and controlled trials [13] confirmed that three months of hypnotherapy resulted in significant improvements in symptoms for groups of refractory IBS patients.

These results have since been reproduced and have been subjected to several systematic reviews. Tan et al [5] reviewed a total of 14 studies published between 1984 and 2004 on the efficacy of hypnosis in treating IBS. They concluded that GDH consistently produced significant results as well as improving the typical symptoms of IBS in the majority of patients. In the same review, research investigating the mechanism of action of GDH for IBS was evaluated. Despite the many attempts to uncover how hypnosis works to reduce IBS symptoms, the specific mechanism of action remains unclear.

To further evaluate the efficacy of hypnotherapy for the treatment of IBS, Webb, Kukuruzovic, Catto-Smith and Sawyer (2005) identified randomised and quasi randomised controlled trials (RCTs) extracting four studies which met inclusion criteria. The primary outcome measure of interest was the overall bowel symptom severity score which includes diarrhoea, pain, constipation, and bloating. Secondary measures included psychological assessments, quality of life, adverse events, and patient's overall assessment of wellbeing. The researchers found the therapeutic effect of hypnotherapy in the treatment of IBS symptoms was superior in the short term to that of a waiting list control, or usual medical management, for patients who fail standard medical therapy (Webb et al., 2005).

A later systematic review and meta-analysis was conducted by Lee, Choi, and Choi (2013) to gauge the efficacy of hypnotherapy for the treatment of IBS. They performed a literature search and selected seven RCT's which compared hypnotherapy with no treatment or conventional treatment in patients with IBS for inclusion in their research. Psychological symptoms, as well as GI symptoms and negative impact on quality of life, were cited as symptoms associated with IBS. While they noted hypnotherapy was considered a promising treatment for IBS, they stated that evidence was limited. They concluded there is evidence that hypnotherapy had beneficial short-term effects upon the improvement of GI symptoms in patients with IBS. However, they highlighted limitations including the low number of studies involved resulting in an inability to draw precise conclusions and that further research was required to assess long term impact. [24]

Despite these encouraging results, the integration of hypnotherapy for IBS into mainstream healthcare has been poor. This has been attributed, in part, to the significant amount of misconceptions about GDH as an effective treatment for IBS.[14] Most published studies have been quantitative and have aimed to review the efficacy of GDH in treating this condition. However, there has been some relevant qualitative research exploring reasons for its poor uptake by mainstream healthcare providers by studying IBS patients' attitudes toward GDH as a treatment option.

Harris and Roberts [15] conducted a qualitative study identifying attitudes and barriers towards GDH as a potential treatment for IBS. Six hundred and forty-five participants completed postal questionnaires evaluating preferences and acceptability of different forms of treatments. When justifying lack of acceptability, four themes from the data arose including dislike for treatment modality, lack of perceived benefit, general barriers, and insufficient knowledge. Scepticism, lack of scientific evidence and fear of alternative medical treatment were mentioned.[15] It was concluded that the majority of patients showed a willingness to accept various forms of treatments but that fears and misconceptions regarding GDH as an alternative and non-evidence-based practice served as barriers for patient acceptance of this as a treatment. Physician support and further studies around GDH as a treatment for IBS to educate and expand awareness were recommended to potentially increase patient acceptability.[15]

To build upon these findings, Krouwel et al [16] conducted a qualitative study also aimed at identifying the perceptions of, and barriers to, hypnotherapy for IBS from the individuals with this condition. Semi-structured interviews were used with 17 participants who self-identified as having refractory IBS according to a specific definition. Thematic Analysis (TA) was used to analyse data. Several themes emerged including conceptualisation of hypnotherapy, hypnotherapy for IBS, barriers to hypnotherapy for IBS and ideal format of hypnotherapy for IBS. Factors potentially inhibiting the use of GDH for IBS were cited as a lack of awareness of it as a treatment for IBS, a lack of understanding of how GDH works as a treatment for a physical condition like IBS, media generated portrayal of hypnotherapy, cost, potential of vulnerability, and fear of the unknown. Participants identified the importance of a hypnotherapist having a formal qualification, experience, and good interpersonal skills. It was concluded that other potential causes and barriers for the low use of hypnotherapy may exist and to identify these, research into availability of service and doctors' awareness of, and attitudes towards GDH was necessary.[16]

While further research is needed, quantitative studies have demonstrated promising findings suggesting GDH as an effective modality in the treatment of IBS. However, despite these findings, it remains underutilised. This appears to be largely caused by a lack of awareness and understanding of GDH. One area that has not yet been researched is the experiences of GDH practitioners themselves. This study intended to build upon prior research by exploring GDH practitioners' experiences of using GDH for IBS and the perceived impact upon client wellbeing. By exploring the perspectives of practitioners, it may contribute to a richer understanding and awareness of GDH for its use on patients with IBS. It may also contribute to the credibility of GDH as a treatment for symptoms of IBS and may contribute to increased confidence for both practitioners' and patients' when undertaking GDH as a treatment for IBS symptoms.

3. Method

3.1. Design

This qualitative study attempted to facilitate a rich exploration of the topic. As this is an under researched area, an inductive approach to data collection and analysis was employed. A subjective exploration of the topic was desired, and a constructivist stance to research was adopted. The notion that reality is subjective and that the participants and researcher impacted upon one another in a reciprocal relationship was understood. Further, the constructivist viewpoint that reality is constructed in the mind of the individual was assumed.[17]

3.2. Participants

The participants were six practitioners from around Australia who

specialised in using GDH. Eligibility criteria included the completion of at least six months practicing GDH and practitioners were to be in private practice within Australia. Both purposive and snowball sampling techniques were employed to source participants. The sample consisted of two men and four women with a mean age of 44 years. Practitioners' experience using GDH ranged from 2 to 10 years. All practitioners were from Australia with three based in Melbourne, one in New South Wales, one in Queensland and one in South Australia. Qualifications were varied with four clinical psychologists who were also qualified as clinical hypnotherapists, one doctor who was also qualified as a clinical hypnotherapist and one clinical hypnotherapist. Participants responded to an email asking for expressions of interest to outlined research. In total, 12 practitioners were contacted with six affirmative responses.

3.3. Materials

Semi-structured interviews were used to obtain data. The flexibility of the semi structured approach was chosen as this allowed rich exploration of the topic and elaboration of the questions.[18] Qualitative interviews were deemed the most appropriate method for collection as they facilitated the capture of the nuanced human perspective and provided in-depth insight and understanding into each practitioners' experiences.[18] Eleven open-ended questions were designed to broadly investigate practitioners' perceptions of, and experience with, both the physiological and psychological symptoms of IBS, significant findings, patient factors and histories, treatment protocol and the mechanism of effect. Interview times were organised via email after an expression of interest from participants was received. Consent was requested through the provision of an emailed form which was to be signed and returned prior to interviews. Skype and audio calls were employed for the purpose of conducting interviews. The recording option was used on Skype to retain Skype interviews and the voice memos app was used to record audio call interviews and one face-to-face interview. Interviews were manually transcribed and were saved on a password protected USB.

3.4. Procedure

Using Google search, multiple potential participants were sourced nationally. An initial search returned 10 potential organisations with practising Gut Directed Hypnotherapists. An email was formulated and forwarded, with the approved flyer attached, outlining research, and requesting expressions of interest via reply. Four participants responded expressing interest and additional information, including consent forms, were forwarded. Within approximately four weeks of initial contact, interview times were organised with four participants and carried out between September and November of 2019. Details of two further participants were obtained via a recommendation from one of the initial participants. The same protocol that was used for initial participants was followed and interviews were set up and conducted. Semi structured interviews were then conducted over a 10-week period using the different mediums outlined above. Interviews ranged in duration from 45 min to 70 min. Within two weeks of the last interview, the manual transcribing of interviews commenced, and this was carried out over four weeks.

3.4.1. Data analysis

A Thematic Analysis (TA) was the chosen method to explore the experience of practitioners delivering GDH to patients diagnosed with IBS and their perceptions of the impact upon client wellbeing. Post transcription and in accordance with an inductive approach to TA, a six-step process as outlined by Braun and Clarke [19] was undertaken. This involved familiarisation with the data which began with manual transcription, then reading and re-reading transcripts while noting relevant, interesting, common, and repetitive ideas. This consisted of open coding the transcripts with an initial identification of 30 codes. Codes were then grouped together based on perceived significance, likeness, prevalence, and compatibility. Initial codes were then re-coded, including the omission of some original codes. This reduced the number of codes to 10.

A thematic map was then constructed to provide a visual aid to assist in the construction of the themes and sub themes detailed in results. Themes were identified at a semantic level. Consistent with a semantic approach, the themes were identified within the explicit meanings of the data, meaning the analytic process involved a progression from description, where the data was simply organized to express patterns in semantic content. It was then summarised to the interpretation of both interviewee and interviewer. TA was data driven and inductive, as the themes were strongly linked to the data itself, and not motivated by the researcher's theoretical interest. The process of coding was undertaken without trying to fit the data into a theoretical framework or perspective. Ongoing analysis refined themes and sub themes and they were clearly defined and named with extracts of data to support them. Theme saturation was reached using inductive thematic saturation to determine the non-emergence of new codes and/or themes.[20] Despite saturation identification primarily occurring at the level of analysis, saturation was viewed as a process rather than an event. It was also noted to be occurring at the interview stage where it was identified that further data collection would be counterproductive and new information would not add to the overall picture.

3.5. Reflexivity

Reflexivity was attempted throughout by maintaining an awareness of researcher impact during the interview process and during data analysis. Interest in the topic and assumptions were bracketed by allowing the interviewee to direct content bringing them back only if we strayed too far off topic. However, as qualitative interviews allow for elaboration and reciprocity between research and participant, it was inevitable that the researcher's presence influenced results.[17]

4. Results

Three major themes emerged from the data named 'Predisposing personality traits and vulnerabilities,' 'Evidence-based practice' and 'Evolution of GDH'. The basis of these themes was founded in eight sub themes defined below.

4.1. Theme 1: predisposing personality traits and vulnerabilities

Major theme 'Predisposing personality traits and vulnerabilities' was informed by three sub themes, 'Comorbidity with anxiety', 'Trauma history & hyper vigilance' and 'Symptom focus and somatization'. All six practitioners cited multiple predisposing personality traits and vulnerabilities as being commonly associated with an IBS diagnosis including perfectionism, a tendency to catastrophize, anxiety and poor stress management often combined with various environmental stressors.

4.1.1. Comorbidity with anxiety

All six practitioners noted a strong relationship between IBS and anxiety. While practitioners' experience of clients' comorbidity rates with anxiety varied, with one practitioner estimating a 40–60 % comorbidity rate, and another citing a 98 % comorbidity rate, all perceived a definite relationship. All six speculated that GDH impacted upon patient anxiety in a positive way and influenced severity of physical symptoms. The impact of GDH on clients who experience pronounced anxiety in conjunction with their physical symptoms is outlined in the excerpt below.

> *"I like to say, it's an umbrella, and if your umbrella's over the top of you and everything under the umbrella is your life and all the effects and everything that this anxiety is having on your life, then you have to work at the top there at that anxiety. And if you start to slow that down, then*

everything underneath that umbrella will slow down and this is what gut directed hypnotherapy does". (3. 432–435)

4.1.2. Trauma history and hyper vigilance

All six practitioners noted specific factors from their experience with clients, as contributing to a vulnerability towards IBS including trauma history and/or a hyper vigilant childhood. Concerns were raised about potential contraindications of trauma history combined with the use of hypnotherapy by two practitioners. The below excerpt highlights one practitioner's perceptions of the role of hyper vigilance in the onset of IBS.

"There's a definite correlation between a more hyper vigilant childhood and the onset of gut disturbance later, at some point in life." (4. 247–248)

4.1.3. Symptom focus and somatization

The observation that IBS patients overwhelmingly exhibited symptom focusing behaviours and somatization were noted by all six practitioners. The aim to guide patients' attention away from the gut during treatment was also cited by all. Normalising gut processes and familiarising patients with their guts were perceived to have a positive impact upon client symptoms.

"This idea of somatization, I guess from a psychological perspective, there's lots of things going on. We see quite a large number of our patients have some sort of trauma related history, physical, sexual abuse. I always saytomy patients, you know, I want you to view your gut like you would any other organ. So, I want you to think about your gut as often as you think about your kidneys." (5. 175–177)

4.2. Theme 2: evidence-based practice

The major theme 'Evidence-Based Practice' was made up of three sub themes 'Myths and misconceptions', 'How it works – Practitioners' perspective' and 'Client factors'. GDH as an evidence-based practice was repeatedly emphasised by all six practitioners.

Practitioners noted a rate of approximately 80 % efficacy in their experience of delivering GDH to patient with IBS.

4.2.1. Myths and misconceptions

Practitioners noted there is a common misconception among patients, and some in the medical industry, that GDH is an alternative, non-evidence-based treatment. This was cited as a contributing factor to the perception that GDH is not founded in evidence.

"A lot of the time when people hear hypnotherapy, they think of the kooky stage magic stuff when really this is actually based in evidence." (1. 541–542)

It was also noted that there was a common misunderstanding regarding a referral to GDH for IBS often resulting in patients believing the inference was that the condition was all in their head. Practitioners noted much of the role involved education and empowering clients with information.

"So a lot of the job is just debunking myths. So you know, it becomes this way, I guess, way of educating the patient that actually, the symptoms aren't in their head and even if there is a psychological component to their symptoms we can understand it from a physiological perspective." (5. 302–306)

4.2.2. How it works – Practitioners' perspectives

The specific mechanism of the effect of GDH on symptoms of IBS has not yet been established in the research. Some practitioners were more willing to speculate as to why GDH has been found to be effective in treating IBS. Overall, the slowing down of the conscious mind, activation of the parasympathetic and subsequently, the enteric nervous system, reduction of autonomic arousal and therefore visceral hypersensitivity and the impact on the gut-brain axis were cited as potential reasons behind its success.

"From a physiological perspective, you know, there are studies that show that it does actually reduce the sensitivity of the gut. And again, you know, when you think about IBS, or functional gut disorders, the underlying problem is what we call visceral hypersensitivity." (2. 451–454)

Another practitioner speculated upon the impact of GDH on anxiety and how this may work to reduce all symptoms of IBS.

"98 % of my clients have pronounced anxiety. So you're slowing down that anxiety slowing down the, the fight or flight, you're activating the parasympathetic nervous system, And whenever you activate that, whether it's activated, you know, whether you're activating the sympathetic or the parasympathetic, you're affecting the whole nervous system, and therefore, the enteric nervous system, which is the nervous system of the digestive tract. So you slow down the mind, which means you slow down the nervous system, which means you slow down and regulate the digestive tract. That's it." (3. 125–133)

4.2.3. Client factors

Practitioners varied in their understanding of which client factors tended to result in better outcomes including commitment to the program. However, all agreed it was not necessary to believe in the efficacy of hypnotherapy to achieve positive outcomes. Depth of hypnotic state was also cited as not impactful upon outcome of therapy. *"So when a patient comes in, I've got no idea how they're going to respond to treatment. So we've looked at things like age, gender, bowel habits subtype, duration of symptoms, hypnotisability, we've looked at everything, and there's nothing that will dictate whether somebody is likely to respond or not and depth of hypnotic state doesn't correlate with outcome of therapy."* (5. 544–547)

4.3. Theme 3: evolution of GDH

As public interest in the gut increases, and research reveals more about the gut-brain axis,[21] practitioners speculated on the impact upon the industry and the major theme 'Evolution of GDH' emerged. This was informed by two sub themes named 'concerns and hope for the future' and 'growth of industry'.

4.3.1. Concerns and hope for the future

All practitioners' expressed concern about the future of GDH as the industry grows. The misconception that GDH is a 'magical' treatment was cited as a concern. All practitioners expressed hope of greater awareness of GDH as an effective treatment for IBS. Two practitioners expressed fear that, as the industry is unregulated, potential harm is increased for clients in the form of inadequate assessment and poor understanding of contraindications by undertrained practitioners.

"And I've actually heard it happening with a straight hypnotherapist doing it and complications arose and they didn't, they didn't know how to manage the contraindications, so the, the adverse reactions and so forth and this can be a problem." (1. 549–551)

4.3.2. Industry growth

All practitioners perceived a growth in industry in the future and with this increased interest, speculated on new areas of research which could contribute to greater options and awareness for clients. One practitioner's forecast for the future is detailed below.

"I see it as growing as gastroenterologists, you know, they have such a part to play in this, because, you know, they have to go by evidence and as more of them start to acknowledge and accept and utilize, then the medical world will open up to it more and more." (6. 301–304)

5. Discussion

This qualitative study identified three key themes regarding practitioners' perspectives about GDH as a treatment for IBS. Practitioners' observations that specific traits, including perfectionism and a tendency for neuroticism, tended to be commonly associated with IBS has been reflected in the research.[22] Comorbidity of IBS and psychological symptoms, particularly anxiety, reflected the findings from previous research [9,10,25]. Practitioners' perceptions of the rate of comorbidity with anxiety varied between 40%–98%, while previous research indicates between 30 % and 75 % comorbidity rate.[23,26] Consistent with prior research, GDH was perceived as having a positive impact on patient anxiety and was viewed, in part, as being potentially responsible for reducing all symptoms associated with IBS. Whilst all the participants identified predisposing traits and vulnerabilities it should be acknowledged that these were present in people presenting for hypnotherapy and they may not be representative of all people with IBS.

The prevalence of trauma history and a hyper vigilant childhood in relation to the incidence of IBS was noted by all practitioners and is also reflected in the research.[11] Symptom focusing behaviours and somatization were observed by practitioners as being commonly expressed by patients with IBS seeking GDH treatment. The aim and role of GDH in helping to eliminate these behaviours was noted. These observations were all supported by research [9] and also lend support to the bio-psycho-social approach to treatment of IBS, the role of the gut brain axis and the potential significance of using psychological interventions, like GDH, in the treatment of refractory IBS.

Previous research findings indicate a 70–80 % rate of efficacy of GDH as a treatment for IBS [2,3] and this was noted by all practitioners in their observations of client symptom reduction post GDH treatment. Consistent with findings in qualitative research regarding patient perceptions of GDH was the observation that there are some myths and misconceptions surrounding it.[15] Misconceptions and misunderstandings about GDH were noted in previous research as being potential barriers to patients trying this treatment.[16] Patient reluctance to perceive GDH as an effective treatment for IBS were attributed to confusion about how a psychological intervention impacts a physical condition [16] and because the mechanism of effect has not yet been established in research. Practitioners' noted a tendency for GDH to be perceived as a 'magical' treatment and cited the portrayal of hypnotherapy in the media to be a contributing factor. This was also noted in prior studies.[16] Practitioners' noted in this study that a lot of their work involved debunking myths and promoting GDH as an evidence based practice.. This supports the aim of this research to expand the knowledge about GDH as a treatment option for IBS.

In this study, practitioners speculated on how GDH works. Potential contributing factors to its efficacy that were discussed included impact upon anxiety, slowing down the conscious mind, activating the nervous system, reducing autonomic arousal and visceral hypersensitivity, and impacting on the gut-brain axis. These speculations have been noted in previous research [14] but have yet to be definitively proven. The role of the gut- brain axis in GDH and IBS has been consistently cited in research and discussed in this study. Growing evidence regarding the reciprocal role of physiological and psychological symptoms of IBS points to the need for an integrative and multidisciplinary approach to treatment of this condition.

The assertion that hypnotisability and depth of hypnotic state did not impact outcome of GDH on IBS symptoms [4] was reflected by practitioners in this study. Practitioners reported that they could not determine how a patient would respond based on a variety of testable factors. Future research is needed to explore specific client factors that are associated with positive treatment outcomes. Unique to this study was the exploration of practitioners' fears and hopes for the future of GDH as a treatment modality for IBS.. The unregulated nature of the industry and the potential for underqualified practitioners practicing GDH were highlighted as potential risks for both patients and the overall industry. As interest in the gut-brain axis increases it was speculated that growth of this industry was inevitable.

Limitations of this study were the small sample size and that results could potentially involve some bias. As participants were all GDH practitioners working in private practice they may inevitably possess some bias towards the efficacy and positive impact of GDH. Attempts were made to limit researcher bias including consideration of all data obtained, continuous re-evaluation, asking open, general questions initially before moving into more specific ones and by keeping wording simple. Although researcher reflexivity was attempted throughout, researcher impact upon results and data analysis was inevitable.

5.1. Recommendations

Recommendations include further research to create greater awareness of GDH as evidence-based and as a treatment for IBS. Further research into the experience of patients with IBS could better address the perceived impact of GDH upon their wellbeing. Education and research could increase the poor uptake currently demonstrated by mainstream healthcare providers. While more research is necessary, quantitative studies have demonstrated encouraging results suggesting that GDH is an effective treatment modality.[4] However, despite these findings, it remains underutilised. This study aimed to contribute to the knowledge about GDH as a valid treatment for IBS by highlighting the experience of practitioners, an under researched area in this field. Intended to build upon prior research by exploring GDH practitioners' experiences, some key themes reflected in prior research were reinforced and some unique perspectives were revealed.

Previous research found patients showed a willingness to accept various forms of treatments but that fears and misconceptions regarding GDH as an alternative and non-evidence-based practice served as barriers for patient acceptance. Physician support and further studies around GDH were recommended to potentially increase patient acceptability.[15] This study could potentially aid in identifying some misunderstandings around GDH and support the findings that it is a safe and highly effective treatment for refractory IBS. Working with physicians through education and obtaining their support would contribute to uptake of this modality into mainstream healthcare. Working within multi-disciplinary teams could also be beneficial. If GDH practitioners worked alongside other health providers, they could assist in educating health professionals about this treatment modality.. Further investigation is necessary and as interest in the gut-brain axis increases, it is an important and interesting time for this area of research.

CRediT authorship contribution statement

Laura Pemberton: Conceptualization, Methodology, Data curation, Formal analysis, Investigation, Methodology, Project administration, Resources, Writing - original draft. **Lauren Kita:** Supervision, Validation, Writing - review & editing. **Katrina Andrews:** Writing - review & editing.

Appendix A. Supplementary data

Supplementary material related to this article can be found, in the online version, at doi:https://doi.org/10.1016/j.ctim.2020.102605.

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