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Hypnotherapy for Inflammatory Bowel Disease Across the Lifespan

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Inflammatory bowel disease (IBD) is an autoimmune disorder characterized by lifelong relapsing gastrointestinal symptoms and associated with high rates of chronic pain, depression, and anxiety. In this review the author covers the existing literature including randomized controlled studies, open trials, and case reports as well as expert opinion in evaluating how hypnotherapy can be most beneficial in adolescents and adults with IBD. Hypnotherapy evidence for functional gastrointestinal disorders (FGIDs) is also reviewed as many of the gut-focused hypnotherapy (GHT) approaches used in IBD trials were developed for this latter population. Collectively, the strongest evidence of use of hypnotherapy is its association with reduced IBD-related inflammation and improved health-related quality of life with mixed results in terms of its effects on psychological and pain outcomes in adults with IBD. Studies of hypnotherapy for FGID symptoms show consistently more positive results. Post-operative hypnotherapy may also be helpful based on findings in other surgical samples. Adolescents with IBD have not been as systematically studied but small case series support the use of hypnotherapy to improve inflammation and pain. Future studies are needed to better delineate the specific brain-gut pathways which are most influenced by hypnotherapy in the IBD population and to investigate the longer-term course of the positive short-term findings.

Keywords: abdominal pain, hypnotherapy, inflammatory bowel disease

Inflammatory bowel disease (IBD) is a group of autoimmune disorders involving an exaggerated immune system inflammatory response in the gastrointestinal (GI) tract. The incidence of IBD is growing worldwide with most common onset during adolescence through mid-adulthood (Regueiro & Swoger, 2013). The two predominant subtypes of IBD, Crohn's disease (CD) and ulcerative colitis (UC) have different pathological manifestations and associated genetic abnormalities. In CD, inflammation affects all layers of the GI mucosa and can occur in any part of the GI tract from mouth to anus. This transmural disease process facilitates leakage of inflammatory markers into the blood, which results in elevation of plasma inflammatory markers as well as the extra-intestinal manifestations of CD which include joint pain (arthritis), inflammation of the eyes (conjunctivitis), and skin lesions. Common symptoms of CD are fatigue, fever, bloody

diarrhea, constipation, nausea, vomiting, and abdominal pain. The inflammation in UC is limited to the innermost layer of the large intestine (colon) and rectum and thus not always associated with systemic inflammation. Common symptoms in UC are similar to CD but diarrhea, including nocturnal bowel movements, is the most common symptom. Extra-intestinal symptoms are rare.

Both IBD subtypes share a life-long course of relapsing and remitting symptoms without a cure (Baumgart & Sandborn, 2007). Treatment of IBD consists of medications to reduce inflammation and provide symptomatic relief. Surgical removal of the diseased GI tract is often necessary for refractory disease with permanent ostomies in cases of severe disease (Bryant, Brain, & Travis, 2015; Sokol, Seksik, & Cosnes, 2014).

Environmental stress, and related emotional distress, is associated with a poorer course of IBD (Bitton et al., 2008; Goodhand, Wahed, & Rampton, 2009; Levenstein et al., 2000; Maunder & Levenstein, 2008). A subset of adolescents and adults with IBD have elevated rates of anxiety and depression compared to healthy controls (Graff, Walker, & Bernstein, 2009; Greenley et al., 2010; Walker et al., 2008). In approximately one-third of patients with IBD, abdominal pain occurs even in the relative absence of measurable inflammation and is associated with greater disability (Bielefeldt, Davis, & Binion, 2009; Faure & Giguère, 2008; Grover, Herfarth, & Drossman, 2009; Wojtowicz, Greenley, Gumidyala, Rosen, & Williams, 2014; Zimmerman et al., 2013). The presence of pain in the absence of active IBD has been referred to as “functional” pain. Collectively, the physical and psychological manifestations of IBD have been linked to reduced quality of life and increased suffering across the lifespan (Bernklev et al., 2006; Karwowski, Keljo, & Szigethy, 2009; Mikocka-Walus, Turnbull, Andrews, Moulding, & Holtmann, 2008; Srinath et al., 2014).

There is evidence that functional gastrointestinal disorders (FGIDs) can co-occur in some patients with IBD (Long & Drossman, 2010) and therefore FGIDs are also included in this review. FGIDs represent a group of disorders consisting of GI symptoms but without any evidence of a known organic disease process. The most prevalent FGID is irritable bowel syndrome (IBS) which affects over 40 million Americans (Grover & Drossman, 2010). The diagnosis of IBS is based on specific ROME III criteria consisting of recurrent abdominal pain which improves with a bowel movement and/or has onset associated with a change in stool form or frequency of stool (Drossman & Dumitrascu, 2006). Additional symptoms of IBS can include bloating, gas, and nausea, but unlike IBD where GI symptoms have inflammatory underpinnings, the cause of IBS is unknown. Visceral sensitivity to noxious exposure (e.g., infections), imbalance in the gut bacteria, and disturbances in motility of the GI tract have been postulated to be involved in causing the symptoms of IBS (Dekel, Drossman, & Sperber, 2015). Also like IBD, anxiety, depression, and stress are common in FGIDs. Medications used to treat IBS most often target specific symptoms such as laxatives for constipation, anti-diarrheal agents, and antispasmodics.

Psychotherapy, particularly cognitive behavioral therapy (CBT) has been shown to be beneficial in improving symptoms in patients with FGID (Palsson & Whitehead, 2013). There are a growing number of studies showing that psychological interventions can be effective in improving quality of life in patients with IBD and can influence processes in both the brain and the gut (Goodhand et al., 2009; McCombie, Mulder, & Geary, 2013; Timmer et al., 2011; Von Wietersheim & Kessler, 2006). In a recent review of different psychotherapies for adults with IBD, CBT was shown to have greatest impact on anxiety and depression while hypnosis was most associated with improved IBD-related inflammation (Knowles, Monshat, & Castle, 2013). Several limitations were noted including small sample sizes, report bias, absence of randomized controlled trials, and heterogeneity in the intervention components and outcome measures used.

In a large randomized trial of 217 depressed adolescents with IBD, both CBT and supportive therapy were associated with significant reduction in depression over a three month period but did not differentiate from each other (Szigethy et al., 2014). These results suggest that psychotherapy is associated with improvement in depression, regardless of the specific modality used. Approximately 75% of this sample had CD. Thus, to evaluate the efficacy of CBT in a more homogeneous sample the change in overall depression and subsets of depressive symptoms (somatic versus cognitive) was assessed in the subgroup with CD and stratified by having active versus inactive disease. Under these conditions, CBT had a significantly greater effect on somatic depressive symptoms, disease activity, and inflammation in the subset with active CD (Szigethy et al., 2015).

These results are consistent with the concept that a brain-based learning therapy can positively influence the GI and immune systems (Bonaz & Bernstein, 2013). In these two studies, 70% of the participants received hypnotic guided imagery and relaxation as part of their CBT treatment. Another CBT protocol was effective in treating anxiety in adolescents in a small randomized trial (Reigada et al., 2013). Since CBT is a multimodal treatment often consisting of different components including relaxation/hypnosis techniques, it is challenging to uncover how much hypnotherapy is involved as an active therapeutic ingredient in improving emotional and physical symptoms in patients with IBD.

In this review I will focus on how hypnotherapy can be beneficial in treating physical and emotional morbidity in both adolescents and adults with IBD. With the relative absence of randomized trials evaluating the efficacy of hypnotherapy in patients with IBD, I will summarize the available published literature in IBD and other relevant gastrointestinal (GI) conditions such as FGIDS and integrate findings from clinical case reports and expert opinion. My aim is to provide proof of concept evidence of the benefits of hypnotherapy for patients with IBD. Potential risks and caveats of using hypnotherapy in this population are also discussed.

Definition of Hypnosis and Hypnotherapy

In a recent definition of hypnosis developed by the American Psychological Association (Elkins, Barabasz, Council, & Spiegel, 2015), hypnosis is defined as “a state of

consciousness involving focused attention and reduced peripheral awareness characterized by an enhanced capacity for response to suggestion.” This definition will be used in this review because it allows for alternative theories about the underlying mechanisms involved. Hypnotherapy is defined as the “use of hypnosis in the treatment of a medical or psychological disorder or concern.”

Hypnotherapy for Physical and Emotional Manifestations of IBD and FGIDs

Several review articles on psychological interventions in adults with IBD have shown a positive impact of hypnotherapy (Knowles et al., 2013; Moser, 2014). Moser conducted a literature review of hypnotherapy and IBD and found six published studies and one published abstract (2014). It was concluded that hypnotherapy improved health-related quality of life and was associated with reduced GI symptoms. Lee, Choi, and Choi, (2014) conducted a literature search for randomized controlled trials of hypnotherapy for patients with IBS and included studies which reported an IBS symptom score or quality of life measure as outcomes. Subsequently the authors completed a meta-analysis of the pooled outcomes using standardized mean differences. They reported on seven randomized trials ($n = 374$) which evaluated the efficacy of hypnotherapy in adults for pain and overall GI symptoms at 3 months for short-term and 12 months for long-term effects. Collectively these studies showed a significant improvement in pain and overall GI symptoms in the hypnotherapy group for the short-term. The results on improving quality of life were inconclusive and this finding was likely due to greater heterogeneity of the measures included.

A specific type of hypnotherapy was developed by Whorwell, Prior, and Faragher, (1984) called gut-guided hypnotherapy (GHT) for FGIDs such as IBS and has been the most studied type of hypnotherapy for patients with other GI conditions. In this approach, patients are taught about basic gut physiology, and are instructed in visualization and tactile techniques involving suggestions of normalization of GI functioning and related reduction in symptoms (Whorwell, 2012). In this Manchester approach, the protocol consists of 10–12 weekly sessions lasting about 45 minutes. Another scripted approach developed by Palsson (2006) consists of 7–8 sessions of GHT. In this approach, developed at University of North Carolina, relaxation techniques are used to induce a state of increased receptivity to facilitate therapeutic psychological and physiological changes to suggestions (Palsson & Whitehead, 2013). Both these GHT-based approaches have been linked to sustained improvement in symptoms in patients with IBS (Gonsalkorale, Miller, Afzal, & Whorwell, 2003; Houghton, Calvert, Jackson, Cooper, & Whorwell, 2002). There is also support for the use of a non-manualized hypnotherapy approach with patients with IBS having even more sustained effects on symptom reduction compared to a scripted approach (Barabasz & Barabasz, 2006).

Palsson and Whitehead (2013) recently reviewed the used of hypnotherapy in 11 published randomized controlled trials for FGIDs to improve GI symptoms such as diarrhea,

bloating, and pain as well as emotional symptoms and improved quality of life post-treatment. Two studies reported maintenance of treatment response at 10 and 18 months after treatment, respectively in adults (Palsson, Turner, Johnson, Burnett, & Whitehead, 2002; Whorwell, Prior, & Colgan, 1987). Improvement in IBS symptoms was thought to be related to improvements in somatization and psychological distress and not to change in physiological variables or rectal pain thresholds. In another study, 204 patients with IBS, 81% remained in remission 5 years after hypnotherapy (Gonsalkorale et al., 2003). Collectively these studies suggest that hypnotherapy may have sustainable effects in many patients with FGIDs.

Ford and colleagues (Ford et al., 2014) also performed a systematic review and meta-analysis of the effects of antidepressants and psychological therapies, including hypnotherapy on IBS with a total of 48 randomized controlled trials. They found a relative risk of 0.68 for remaining symptomatic with IBS symptoms after therapy using pooled psychotherapy data. This was similar to the relative risk of 0.67 of IBS symptoms not improving for antidepressants with similar treatment effects of different types of antidepressants. Psychological therapies also have lower risks of side effects compared to medications though, in many studies, the adverse effects of psychological interventions are not adequately probed.

Similar to the adult literature, most of the studies examining the effects of hypnotherapy in pediatric GI disorders are for functional pain syndromes. Two controlled trials in pediatric FGIDs evaluated the effects of short-term hypnotherapy (6 sessions) on abdominal pain and found significant improvement in pain which persisted up to 5 years follow-up in 68% of patients in the hypnotherapy group compared to 20% in a supportive therapy control group (Vlieger, Menko–Frankenhuis, Wolfkamp, Tromp, & Benninga, 2007; Vlieger, Rutten, Govers, Frankenhuis, & Benninga, 2012). In another review of 3 randomized trials of GHT for functional abdominal pain or IBS in children, significant improvement in abdominal pain was reported in the short-term; with one trial showing sustained effects after 1 year follow-up and two studies showing significant reduction in school absenteeism (Rutten, Reitsma, Vlieger, & Benninga, 2013).

In children with functional chronic abdominal pain (ages 4–18) with follow-up at 4–24 months, hypnotherapy was effective in 14 of 17 adolescents receiving treatment. In the 3 youth who did not respond to hypnosis, secondary gain was postulated as the reason for lack of positive effects (Galili, Shaoul, & Mogilner, 2009). These results emphasize the need for clinicians to be cognizant of mitigating factors that may contribute to the maintenance of symptoms. Another randomized study compared a standardized behavioral-hypnotherapy intervention ($n = 20$) to a wait-list control condition ($n = 18$) in children ages 6–12 with recurrent chronic pain. At three months post-treatment, 55% of the children in the hypnosis group showed a significant reduction in pain and related disability but only 5.6% in the control group showed similar results (Gulewitsch, Müller, Hautzinger, & Schlarb, 2013).

While the literature strongly supports the use of hypnotherapy for IBS in both youth and adults, one reason cited for its lack of widespread clinical dissemination is the lack of qualified providers. A randomized trial examined a home-based guided imagery intervention using audio and video recordings versus standard medical care for functional abdominal pain in 34 children (ages 6–15) with functional abdominal pain (Van Tilburg et al., 2009). In the guided imagery group, 63% of children were responders versus almost 27% in the control group. When the children in the control group received the guided imagery intervention, 61.5% became treatment responders. The treatment effects for this hypnotic intervention were still present in 62.5% of the children at 6 months. A large randomized trial, currently in progress, is examining the effects of individual hypnotherapy by a trained hypnotherapist versus hypnosis training via self-exercises at home over a 3 month period in 260 youth ages 8–18 (Rutten et al., 2014). Although the results are not yet available, these types of studies will allow the determination if hypnotherapy can be delivered in less costly ways through self-guided programs.

The literature is mixed on how much of the effects of gut-guided hypnotherapy in IBS or IBD are related to reduction in autonomic nervous-system mediation of gut functioning, or reduced emotional distress, visceral nociception, or altered pain perception in the central nervous system (Bonaz & Bernstein, 2013). Mechanistic studies are needed to better understand the pathways and mediators underlying the treatment effects of hypnotherapy for GI symptoms in FGIDs and IBD.

Inflammation in IBD

There are a growing number of studies supporting a role of hypnotherapy in reducing inflammation in patients with IBD. Mawdsley, Jenkins, Macey, Langmead, and Rampton (2008) provided one 50-minute GHT session to 8 participants with active UC while 9 control patients listened to music. The hypnosis script in this study consisted of induction of relaxation, visualization of reduced inflammation, and a sensory prop (warm hand on abdomen) used to translate brain-based changes to the body in the form of reduced inflammation, pain, and bloody diarrhea. In the GHT group, there were reduction of various markers of inflammation by various degrees: 53% in plasma interleukin-6 (IL-6) levels, 81% in rectal substance P, 35% in histamine, and 53% in IL-13 compared to controls. Rectal blood flow was also reduced by 18% in the GHT group. There was no change in plasma IL-13, tumor necrosis factor-alpha, leukocyte count, natural killer cell number, and platelet activation. The authors concluded that hypnosis was associated with a selective reduction in specific inflammatory responses in active UC.

Miller and Whorwell (2008) studied individualized GHT for 15 patients with severe active IBD who were on steroid treatment but not having an adequate response. This non-randomized trial used pre–post assessment of disease activity, quality of life, steroid use, and surgical rates. Participants received 12 sessions of hypnotherapy and had a mean follow-up period of 5.4 years. In 13 patients, there was overall less disease activity (with

27% in remission and 53% with mild activity), less corticosteroid use (60% stopping their use), and improved quality of life in almost 80%. However, two patients failed to respond to hypnotherapy and required surgical resection. According to the authors, the use of GHT was unrelated to the time to surgery.

A recent study showed that gut-directed hypnotherapy significantly augmented the length of time of clinical remission in quiescent UC in a randomized trial of 54 patients who received either 7 GHT sessions ($n = 26$) or attention control ($n = 29$) and were followed over 1 year (Keefer et al., 2013). Those participants receiving hypnotherapy increased time in remission by 78 days relative to the control group. There was no significant difference between groups over time in quality of life, medication adherence, perceived stress, or psychological factors. Collectively these findings suggest that the effects of hypnotherapy on IBD course were related to brain-mediated effects directly on inflammatory processes in the GI tract. It has been hypothesized that these anti-inflammatory effects of hypnotherapy may be related to increases in vagal parasympathetic activity, a known anti-inflammatory pathway (Andersson & Tracey, 2012; Bonaz & Bernstein, 2013; Tracey, 2007). In turn, reduced inflammation may lead to reduced GI symptoms and improved quality of life in a subset of patients with IBD. In summary, hypnotherapy reduces inflammation in patients with IBD, but the exact mechanism needs to be elucidated.

Gastrointestinal Symptoms in IBD

A pilot study showed feasibility and acceptability of GHT in a case series of eight female patients with inactive IBD with significant improvement of IBD-related quality of life post-treatment (Keefer & Keshavarzian, 2007). Positive effects after adjunctive hypnotherapy in two female patients with CD (ages 18 and 24) was reported (Emami, Gholamrezaei, & Daneshgar, 2009). The hypnotherapy consisted of 12 weekly sessions with ego strengthening, gut-related suggestions, and immune-directed imagery. Immediately post-treatment, one patient had significant improvement in psychological distress and quality of life but at 6 months, both patients showed improvement in GI symptoms and quality of life, ability to cope with having IBD, and psychological distress.

Keefer and colleagues (2012) used a randomized control trial of individualized hypnotherapy in patients with UC ($n = 19$ hypnosis versus 17 control treatment as usual) in patients with inactive disease. The experimental intervention consisted of 7 weekly sessions of GHT and home-based self-hypnosis practice using an audio file of the therapist's voice. Outcomes evaluated were quality of life, self-efficacy, medication adherence, perceived health competence, and perceived stress in the pre-post period and 20 weeks post-treatment. There was no change in overall quality of life but significant improvement in physical subscale of quality of life scale. Inflammatory markers or endoscopic changes in disease process were not measured.

Shaoul, Sukhotnik, and Mogilner (2009) conducted an open trial in 7 youth (ages 10–17) with IBD and some degree of emotional distress. All patients received conventional medical treatment for IBD for 6 months and those patients with persistent GI symptoms completed between with 4–12 hour-long hypnotherapy sessions over 3 months. There was no change in medical treatment during this period. A wide range of hypnotic techniques were used including hypnotic stories, breathing techniques, ego-strengthening, and direct suggestions to improve immune functioning and GI symptoms. Post-treatment, there was significant improvement in pain, diarrhea, and inflammatory markers. No side effects were noted, an important and often neglected observation in hypnosis studies. Although the dose and hypnotic techniques utilized in this study differed across the subjects, the results again suggest hypnotherapy is associated with an anti-inflammatory effect.

In a small pilot study ($n = 7$) recruiting adolescents with active IBD for 2–4 sessions of hypnotherapy plus medical treatment as usual versus medical treatment as usual alone to assess feasibility and initial effects was conducted (Szigethy, unpublished data). The sample my colleagues and I studied had moderate disease activity and mild levels of depression and anxiety at baseline. The hypnotherapy was scripted and involved the following two phases.

Phase 1. Obtain history of IBD and illness narrative; happy place/laughing place/safe place, heroes, favorite video game, TV show. Educate about immune system and link hypnosis to strengthening guard cell's ability to counter the killer cells activated during an IBD flare.

Phase 2. Guided imagery for child to look inside bones (factory) to make less killer cells and more guard cells and send them into bloodstream to act at site of inflammation. Guard cells provide protective coating to help heal and be less sensitive to pain. Imagine intestine becoming smooth and free of inflammation-what it would feel like. Juxtapose relaxed feeling with ability to have less discomfort and return of normal GI functioning to have more relaxed control of fighting back at IBD flare-up and return to pre-morbid life functioning.

Both intervention “arms” showed improvement in abdominal pain severity, as measured by a self-report pain index (Walker, Smith, Garber, & Van Slyke, 1997) at a 2 week follow-up, but only the hypnosis group had a significant reduction in erythrocyte sedimentation rate (ESR), an inflammatory biomarker, showing preliminary feasibility in conducting this type of study as well as further corroborating that hypnotherapy can influence peripheral inflammation.

Surgical Healing

Hypnosis may also have benefit for surgical patients (Wood & Hirschberg, 1994). For example, hypnotherapy was associated with a reduction in post-surgery morphine

requirements in women with elective abdominal hysterectomy in randomized controlled trial ($n = 63$) (McLintock, Aitken, Downie, & Kenny, 1990). In two groups of patients after intra-abdominal operations, those patients who received a specific suggestion for reduction of ileus delivered over a 5 minute period, had shorter average time of return of bowel motility (2.6 versus 4.1 days) compared to those who received general reassurance but no specific suggestions (Disbrow, Bennett, & Owings, 1993). With such a small number of studies using hypnotherapy as an adjunct to abdominal surgery, the results are promising but need replication.

A more systemic review of the efficacy of mind–body based therapies (relaxation, guided imagery, hypnotherapy) given pre-operatively assessed post-operative outcomes in adults undergoing elective surgical procedures (Nelson et al., 2013). In evaluating 20 studies (1,297 total subjects) with over half of these studies involving abdominal surgery, relaxation most influenced psychological well-being but not analgesic effects. Guided imagery showed strong improvement in psychological well-being and moderate efficacy for pain relief. Hypnotherapy showed partial effects on psychological well-being. A significant degree of heterogeneity was noted in the study design, outcomes and specific hypnotherapy techniques used were noted as a significant limitation across these studies. Collectively these studies support the contention that hypnotherapy could also positively influence healing after surgical resections. Although not directly evaluated in patients with IBD, the implications of a positive effect of hypnosis on post-operative healing is important to consider in this population where disease-related complications often lead to the need for surgical resection of a portion of the intestinal tract and in severe cases result in permanent ostomies.

Psychological Distress in IBD

The effects of hypnotherapy on anxiety and depression has not been well-studied in patients with IBD. Emami and colleagues (2009) reported on the effects of 12 weekly one-hour gut-directed hypnotherapy on two patients hospitalized in a behavioral inpatient unit. The first patient, an 18 year old female showed improved quality of life, reduced emotional distress, and better coping with IBD post-treatment while the second patient, a 24 year old female only showed improvement in coping after hypnotherapy but no change in anxiety, depression, or quality of life. The strength of this study is in the detailed description of the specific hypnotic techniques used in each of the 12 sessions. The major limitation, is that with only two cases, the study was not powered to show significant effects. A recent pilot study evaluated feasibility, acceptability, and initial effects of GHT in 17 adult IBD patients with psychological distress (Griefenegg, Michalski, DeJaco, & Moser, 2013). The intervention consisted of 5–10 sessions of group GHT (six patients per group) with follow-up post-treatment at one year. Patients described the intervention as helpful and there was a significant improvement in GI symptoms, anxiety, depression, and general well-being.

Intra-Psychic Conflict in IBD and FGIDs

A theoretical article postulated that IBD as an autoimmune disease was characterized by high amounts of suppressed aggression and that hypnosis could help patients gain insights into this type of intra-psychic conflict and to visualize controlling the autoimmune antibodies (Schafer, 1997). This premise also has been considered by Gerson (2002) who speculated that some patients with IBD have difficulty expressing rage when threatened by separation from an important object, thus turning it inward thereby damaging intestines based on psychoanalytic clinical observations.

While it has been challenging to empirically validate such psychodynamic theories which involve unconscious processes, there is a growing evidence for a neurobiological basis connecting mood lability, inflammation, childhood trauma, and GI disorders (Dekel et al.; Drossman, 2011). For example, there are high rates of sexual or physical abuse reported in women with IBS and such abuse history has been linked to increased medical symptoms such as pain, fatigue, and psychological distress (Drossman et al., 1990; Walker, Katon, Roy-Byrne, Jemelka, & Russo, 1993). There is also support for abuse playing a role in abdominal pain in children though at lesser rates than in adults (Devanarayana et al., 2014; Sonneveld et al., 2013). Childhood trauma has independently been associated with anger/irritability and increased risk of autoimmune conditions (Coelho, Viola, Walss-Bass, Brietzke, & Grassi-Oliveira, 2014; O'Malley, Quigley, Dinan, & Cryan, 2011). Further prospective research is needed to understand the causal relationships between these factors and the potential protective role of hypnotherapy. In the absence of such data from large sample trials in IBD, I present a clinical case which supports the therapeutic effects of projective hypnotherapy in helping patients with IBD by helping them deal with past trauma:

A 35 year old female with CD x 10 years with biopsy evidence of ileal involvement. She had been treated with many different types of anti-inflammatory medication. Her disease activity was in remission by histologic and plasma inflammatory marker criteria but she continued to have significant diarrhea, abdominal discomfort, and fatigue. She met criteria for major depression and was started on bupropion with improvement in her mood and fatigue but persistent gastrointestinal symptoms. She met criteria for IBD-IBS and completed 7 sessions of gut-guided hypnotherapy with minimal improvement in her symptoms. Projective techniques such as age regression were added to the hypnotherapy tools and in the safety of trance-work over 6 weekly sessions, she was able to link her somatic expression of repressed feelings of anger and hurt to a rejecting and critical father to the failure of her parents to protect her from an early life sexual abuse encounter. When this link became consciously recognized, she experienced a significant further improvement in her mood as well as a significant improvement in her GI symptoms. She decided to stop all of her IBD medications and has remained in clinical remission of both her depression and CD for over 2 years.

It is interesting that so many of these cases show improvement in systemic inflammation and psychological distress with hypnotic exploration of unconscious conflicts and traumas.

Abdominal pain has also been linked to unconscious conflict in children (Pederson, 1975) though this has not been systematically studied in children with IBD. It is important that a biopsychosocial approach in evaluating physical or emotional distress in pediatric patients with IBD consider intra-psychic conflict as a source of persistent symptoms, especially in the absence of active disease. A case report below shows the importance of a psychodynamic formulation in treating pain with hypnotherapy in a younger child:

Suzu is a 5 year old with a family history of UC who developed abdominal pain and diarrhea and upon medical examination is also diagnosed with UC. At the time of her diagnosis, she was attending kindergarten and enjoying school and developing appropriate social peer relationships. She was otherwise physically healthy and did not meet any diagnostic criteria for psychiatric disorders. She received steroid medication treatment and her inflammation improved significantly but her severe abdominal pain persisted. Guided imagery techniques such as blowing the pain into a balloon or hypnotic stories slightly reduced the pain in session but had no persistent effect at home. In speaking with her parents, they noted that the pain (and diagnosis of UC) had both started at the time of the birth of her younger brother. She expressed being upset at “no longer being the baby of the family.” Using play therapy with families of stuffed animals as a projective technique, we were able to uncover that she was angry at her brother for displacing her, the baby, but also had guilt about these feelings. Taking advantage of the natural hypnotic trance state that children enter when they are absorbed in play, suggestions about releasing the anger as she transitioned from a baby to a beautiful young girl like a bud changing to a beautiful flower (building from a small flower garden she tended at her house). As she worked through this conflict through play and began to see herself as her mother’s helper, her abdominal pain remitted and her UC remained in remission for the next two years, at which time she was lost to further follow-up.

With children and adolescents, it is particularly important to look for developmentally appropriate conflicts that may present as somatization even when a chronic physical disease is present. As noted earlier, IBD flares are often associated with stress or perceived stress which can include dealing with a chronic disease which can have embarrassing symptoms, physical manifestations like ostomies, and disruption in social development during times of prolonged disease (Dorrian, Dempster, & Adair, 2009; Nicholas, Swan, Gerstle, Allan, & Griffiths, 2008). Hypnotherapy can provide a safe way to explore these concerns and offer youth a way to self-soothe with personalization based on the formulation of the source of the distress or symptoms.

Integration of Hypnotherapy into Medical Care

While in carefully controlled studies, the effects of hypnotherapy are examined in isolation, in real-world practice, both medical and psychological treatments are intermingled in treating the “whole” person. The evidence in the field supports the integration of psychosocial approaches such as hypnotherapy into the standard medical care for the comprehensive management of patients with IBD (Mikocka-Walus et al., 2012). A case

example below shows how such integration of hypnotherapy into a multimodal treatment approach can improve outcome (Szigethy, Schwartz, & Drossman, 2015):

Mary is a 64-year-old married female with treatment refractory CD which required multiple surgeries and resulted in a permanent rectal ostomy 8 years prior. Since that time she has had significant rectal pain, which despite treatment with escalating doses of narcotics, continues to worsen. There is no evidence of any active inflammation or surgical complication to account for her pain. She also meets criteria for major depression and generalized anxiety disorder. Patient was tried on multiple different classes of non-opioid psychotropic medications and was taught CBT skills including relaxation that resulted in improved depression but only a 20% reduction in her pain. After it was explained to her that she may have narcotic bowel syndrome, an opioid induced central hyperalgesia (Grunkemeier, Cassara, Dalton, & Drossman, 2007), she was willing to taper her narcotics resulting in another 40% reduction in self-reported rectal pain. Over the next 6 months, she received GHT as well as ego-strengthening hypnotherapy every two weeks which resulted in a further 80%–100% reduction in her pain in each session and over time a further total improvement in her baseline pain of 80% nine months after her initial assessment as measured by a pain visual analogue scale. Her CD remained in remission, she remained off opioids and fully re-engaged in her life.

Caveats and Future Directions

While overall there is evidence for the therapeutic benefit of hypnotherapy for both physical and emotional aspects of IBD, it is imperative that it is considered as an augmenting intervention with continued aggressive medical treatment of serious symptoms. It is important to objectively monitor the course of such symptoms so that a temporary relaxation response does not mask ongoing medical processes (e.g., fever, significant weight loss, anemia, bowel obstructions). A strong collaborative relationship between the behavioral and medical team members is essential to provide the best comprehensive care. It is also essential that practitioners of hypnotherapy receive proper training through certified and clinically recognized organizations and are aware of the ethical parameters in the use of hypnotherapy for any patient population. Although there is mixed evidence of efficacy of hypnosis on the management of post-operative pain, the use of hypnotherapy to supplement medical care after surgery has been considered safe (Tan, Law, & Gan, 2015). Finally, hypnotherapy is one tool among other modalities which need to be considered, particularly if positive outcomes are not achieved with other modalities.

As clinicians, it is important to realize that hypnosis may be facilitated or induced by the positive expectancy many patients have related to medical experts. Thus it is possible when speaking to patients that we are informally inducing a trance-like state in our patients that makes them more susceptible to suggestions (Atlas & Wager, 2012; Drossman, 2013). Thus, care in the choice of language, particularly when relaying negative or challenging information is critical. There is some evidence that hypnotherapy may have a high placebo effect in patients with IBS or to induce a false-positive effect

due to the high performance bias that comes from the lack of blinding of participants (Flik et al., 2011; Ford & Moayyedi, 2010). Although there is increasing evidence that the placebo effect has a neurobiological basis (Meissner et al., 2011), a growing number of hypnosis studies are showing a conditioned response effect of hypnotherapy lasting much longer than the relatively short-term benefit linked to placebo responses (Palsson et al., 2002; Vlieger et al., 2012).

Other mind–body interventions such as meditation, mindfulness techniques, yoga, acupuncture, and Tai Chi may have similar positive effects on certain individuals (Bonaz & Bernstein, 2013) but more research is needed to evaluate what works for whom in different phenotypic subgroups of patients with IBD (including UC versus CD). Objective biological markers such as markers of inflammation and intestinal microbiome markers supplementing self-report questionnaires as outcomes would also strengthen conclusions about treatment effects. Adequate methodological details describing the hypnotherapy process would also facilitate more replication of existing studies. There is also the need for further study of the long-term effects of hypnotherapy for IBD.

Conclusion

The existing evidence to date supports the use of hypnotherapy in patients with IBD as part of a multi-modal treatment plan which integrates behavioral care into medical care. The strongest evidence for hypnotherapy in IBD is linked to effects on reducing inflammation and improving health-related quality of life. Effects on psychological symptoms including chronic pain is less conclusive and requires further study, though positive findings in these domains after hypnotherapy for patients with FGIDs offers hope that such efficacy can be shown for patients with IBD as well. Future studies using a randomized controlled design and with appropriate samples that take into account the phenotypic heterogeneity in IBD and its treatment are needed to prove efficacy of hypnotherapy for patients with IBD. In children and adolescents with IBD, hypnotherapy could have a protective effect in training the brain to better cope with the psychological and physical consequences of this life-long inflammatory disease, which to date, remains without a cure.

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