PERSPECTIVES IN CLINICAL GASTROENTEROLOGY AND HEPATOLOGY

Psychological Treatments in Functional Gastrointestinal Disorders: A Primer for the Gastroenterologist

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This article has an accompanying continuing medical education activity on page e23. Learning Objective—At the end of this activity, the successful learner will be able to differentiate between common forms of psychological treatments and identify which of them are most likely to be useful for specific functional gastrointestinal disorders.

The functional gastrointestinal disorders (FGIDs) often show inadequate response to usual medical care. Psychological treatments can help improve functional gastrointestinal disorder patient outcomes, and such treatment should be considered for patients who have moderate or severe symptoms after 3–6 months of medical care and those whose symptoms are clearly exacerbated by stress or emotional symptoms. Effective psychological treatments, which are based on multiple randomized controlled trials, include cognitive behavioral therapy and hypnosis for irritable bowel syndrome and pediatric functional abdominal pain, cognitive behavioral therapy for functional chest pain, and biofeedback for dyssynergic constipation in adults. Successful referral by the gastroenterologist for psychological treatment is facilitated by educating the patient about the rationale for such treatment, reassurance about the diagnosis and continuation of medical care, firm doctor-patient therapeutic alliance, and identification of and communication with an appropriate psychological services provider.

Keywords: Psychological Treatment; Cognitive Behavioral Therapy (CBT); Hypnosis; Biofeedback; Relaxation Training.

The functional gastrointestinal disorders (FGIDs) are a group of more than 20 chronic medical conditions of the gastrointestinal tract that constitute a large proportion of the presenting problems seen in clinical gastroenterology and are hard to treat effectively. For example, in a survey of 1658 patients with FGIDs in a health maintenance organization in Seattle,[1] the proportion of patients who reported that their bowel symptoms were at least somewhat better after 6 months of usual medical management was only 49% for irritable bowel syndrome (IBS), 63% for functional diarrhea, and 56% for functional constipation and functional abdominal pain. There is a clear need for supplemental interventions that can help reduce the morbidity, life impairment, and chronically high healthcare usage of the many FGID patients who remain highly symptomatic in spite of all that usual medical care approaches can offer. Psychological treatments have shown the best overall promise for that purpose to date and are gradually becoming widely accepted and recommended options for FGIDs. For example, psychological treatments are given a "strong recommendation" rating for improving global IBS morbidity in the current evidence-based position statement of the American College of Gastroenterology.[2] Similarly, the American Gastroenterological Association technical review on IBS recommends psychological treatment for moderate and severe patients, those with inadequate response to standard medical care, and patients in whom psychosocial factors clearly exacerbate symptoms.[3]

The rationale for using psychological interventions for FGIDs can be summarized as follows:

1. Stressful life events trigger exacerbations of symptoms in many patients,[4] and traumatic life events such as sexual or physical abuse[5] are associated with an increased prevalence of IBS and other FGIDs.
2. Comorbid psychiatric disorders such as generalized anxiety disorder and major depression are highly prevalent in FGID patients (for example, found in 50%–94% of clinical samples of IBS patients[6]), and anxiety and depression have been identified as associated with poorer outcomes for FGID patients.[7–9]
3. The brain exerts a powerful influence over gastrointestinal pain perception, motility, and secretion. In functional dyspepsia, anxiety is correlated with lowered threshold for gastric discomfort/pain and reduced gastric accommodation,[10] and depression is associated with increased postprandial distress, nausea, and vomiting.[11] In IBS patients, stress lowers visceral pain thresholds and stimulates colonic and ileal motility.[4,12]

Abbreviations used in this paper: CBT, cognitive behavioral therapy; FGIDs, functional gastrointestinal disorders; IBS, irritable bowel syndrome; RCTs, randomized controlled trials.

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4. Psychological treatments work. A large number of randomized controlled trials (RCTs) show that short courses of certain psychological interventions can markedly improve the symptoms of several FGIDs, while simultaneously enhancing emotional well-being and quality of life and sometimes reducing healthcare needs as well.

The dilemma of the clinical gastroenterologist is that he or she may be convinced that psychological treatment could help FGID patients but may not know which of the many forms of such therapies is suitable for a given disorder or how to go about making the referral. The aims of this article are to make this process easier by (1) identifying and describing the forms of psychological treatment that show evidence of effectiveness in FGIDs, (2) summarizing the empirical evidence for their effectiveness, (3) explaining how to find a suitable local provider, (4) characterizing which FGID patients should be considered for referral, and (5) describing how to make an effective referral.

Empirically Tested Psychological Treatments for Functional Gastrointestinal Disorders

A number of different psychological therapies have been tested for FGIDs in the past 30 years. However, only 5 modes of treatment have been assessed in multiple RCTs. That is a necessary standard of evidence for any firm conclusions to be made about the value of interventions for FGIDs for multiple reasons. Without randomization, selection bias is likely to confound treatment outcomes; placebo rates are often high for psychological interventions, so placebo control or credible active treatments are necessary for outcome comparisons; and psychological treatments are generally carried out within the context of continued medical care, so observed therapeutic responses cannot be conclusively attributed to psychological treatment without control groups.

Although numerous systematic reviews have been published in the past on psychological treatments for various FGIDs, these are outdated. Some of the most important and strongest trials have appeared in the literature only after key reviews were published. We therefore searched the research literature via MEDLINE (1965–2012) for all RCTs on psychological treatments for FGIDs (by using terms for various common psychological treatments and the individual FGIDs) and reviewed articles cited in past systematic reviews as well as the reference sections of the articles found in our online search. Five psychological therapies—cognitive behavioral therapy (CBT), hypnosis, psychodynamic interpersonal therapy, relaxation training, and biofeedback—have been tested in multiple RCTs (Supplementary Tables 1–5), and our review will be limited to those 5 therapies. Because gastroenterologists may not have detailed knowledge of the nature of those therapies, we will describe each of them and then summarize the evidence for their value in FGID treatment. We will exclude from this overview several studies that combined multiple different psychological treatments, sometimes as many as 4 or more different interventions applied simultaneously, because this makes it impossible to judge the value of a particular therapy approach.

Cognitive Behavioral Therapy

This is a structured form of psychotherapy that is usually conducted individually but can be administered in group format. The treatment usually consists of a course of 6–12 sessions that focus on the present situations in which symptoms occur rather than the patient's history. CBT is based on the theory that maladaptive thoughts are the causes of psychological symptoms such as anxiety and depression, which in turn cause or exacerbate physical symptoms. An example would be a patient who believes that eating in a public place will always cause them to have diarrhea and other embarrassing symptoms (a catastrophizing maladaptive thought), which might lead the patient to both avoid social interactions (self-defeating behavior) and to become anxious when dining in a restaurant. The anxiety and autonomic arousal caused by this maladaptive thought may actually trigger diarrhea. The therapist aims to help the patient recognize maladaptive thoughts and self-defeating behavior patterns that are adversely affecting life functioning, symptom experience, and mental well-being. Therapy tasks commonly include increasing awareness of the association between stressors, thoughts, and symptoms; examining and correcting irrational beliefs; countering automatic negative thoughts; observing and problem-solving factors that exacerbate symptoms; and identifying and adopting alternative, more effective coping strategies to handle challenging life situations and deal with gastrointestinal symptoms. In between therapy visits, patients are typically asked to complete homework assignments related to the treatment tasks. It should be noted that the relative emphasis on individual treatment components varies a lot. Some interventions that fall under the general umbrella of CBT are mostly or exclusively either cognitive or behavioral in nature (ie, they either focus on changing thought patterns or on learning and practicing healthy behavior patterns).

CBT has been studied more than any other form of psychological intervention for FGIDs in RCTs. Thirty RCTs have been published (Supplementary Table 1) comparing CBT with other interventions. The majority of these trials (18 studies) were conducted on adults with IBS. Outcomes for CBT treatment were compared with control groups receiving usual medical care or on waiting lists for the treatment, antidepressant or antispasmodic medication, placebo or active psychological interventions such as supportive therapy, education, or stress management/stress reduction treatment. This substantial body of empirical studies shows that CBT is an effective therapy for improving IBS. In all but 3 trials, the CBT arms showed superior outcomes. In the positive trials, gastrointestinal symptoms were almost uniformly found to be significantly reduced after treatment, sometimes substantially more than in comparison groups. For example, Payne and Blanchard[13] randomized 34 patients to 8 weeks of cognitive therapy, a self-help support group (which controlled for "placebo" or expectancy effects), or a waiting list group. Cognitive therapy patients showed an average of 67% reduction in the composite bowel symptom score after treatment, compared with 31% reduction in the support group and only 10% in the waiting list subjects. Improvement was fully maintained at 3-month follow-up. Although most studies have not included follow-up longer than 3 months after treatment, there is evidence that therapeutic benefit of CBT for IBS can last 8 months to 2 years after treatment termination.[14–16] In addition to gastrointestinal symptom improvement, quality of life and emotional well-being are often documented to improve significantly from such treatment as well.