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Prediction of treatment outcome among patients with irritable bowel syndrome treated with group cognitive therapy

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Abstract

Using a sample of over 125 patients with irritable bowel syndrome (IBS) who were treated with cognitive therapy administered in small groups, we sought to predict end of treatment and 3-month follow-up improvement in two changes indices of gastrointestinal (GI) symptoms (Pain/Discomfort Index which assessed change in abdominal pain, abdominal tenderness and bloating and Bowel Regularity Index which assessed change in diarrhea and constipation). We also sought to predict scores on IBS specific quality of life (QOL) and overall level of psychological distress using the Global Severity Index (GSI) of the Brief Symptom Inventory (BSI). Significant, but modest, levels of prediction were found for prediction of improvement in GI symptoms (4–15% of variance). Stronger significant prediction was obtained for the QOL and global psychological distress measure with R^2's ranging from 0.36 to 0.50. A wide variety of demographic, GI symptom, psychological status and psychiatric status variables entered the final prediction equations.

Keywords: Irritable bowel syndrome (IBS); Cognitive behavioral therapy (CBT); Prediction of treatment outcome

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Introduction

Irritable bowel syndrome (IBS) is a functional disorder of the lower gastrointestinal tract that affects 10% or more of the adult population in the United States (Drossman, Li, Andruzzi et al., 1993). It is estimated to cost American society billions of dollars in direct medical care (Levy et al., 2001) as well as in lost work time or reduced productivity (Hahn, Yan, & Strassels, 1999). At present, there are no universally accepted pharmacological treatments (for a review see Mertz, 2003) for the full range of symptoms. This has led to a growing literature exploring the efficacy of psychological treatments including several recent relatively large scale randomized controlled trials (RCTs) (Drossman et al., 2003; Creed et al., 2003; Boyce, Talley, Balaam, Koloski, & Gruman, 2003; and a large-scale effectiveness study of hypnotherapy (Gonsalkorale, Houghton, & Whorwell, 2002).

Recent detailed qualitative reviews of this literature are available in Blanchard and Scharff (2002) and Blanchard (2005), with a quantitative review (meta-analysis) available in Lackner, Morley, Dowzer, Mesmer, and Hamilton (in press). A conclusion that emerges from these reviews is that the various psychological treatments (hypnotherapy, brief psychodynamic or interpersonal psychotherapy, various combinations of cognitive and behavioral techniques) lead to noticeable improvement in some, but not all, IBS sufferers. Therefore, there is a need to identify patient characteristics that can help predict who will benefit from which type of treatment.

In the next section of this paper, which centers on Table 1, the available published information (to the best of our knowledge) on prediction of response to psychological treatment of IBS is summarized as a way of setting the stage for the empirical portion of this paper.

As Table 1 indicates, one can see contributions from the three primary psychological treatments of IBS, hypnotherapy as initially described by Whorwell, Prior, and Faragher (1984), brief psychodynamic psychotherapy as initially described by Guthrie, Creed, Dawson, and Tomenson (1991), renamed as interpersonal therapy in Creed et al. (2003), and various combinations of cognitive and behavioral techniques, termed CBT. Several themes seem apparent in these results.

Psychological disturbance

For hypnotherapy, there are two reports of an inverse relation between pre-treatment degree of overall psychological distress (Whorwell, Prior, & Colgan, 1987, Harvey, Hinton, Gunary, & Barry, 1989) and degree of GI symptom improvement with a partial replication in female patients only with regards to depression in Gonsalkorale et al. (2002). Galovski and Blanchard (1998), using the same hypnotherapy protocol, reported the opposite results (presence of more Axis I disorders is associated with greater GI symptom relief).

There are other conflicting reports on this potential predictor: Guthrie et al. (1991) also report better outcome (higher percent of patients improved) with the presence of pre-treatment anxiety or depression when brief psychodynamic psychotherapy is used, agreeing with Galovski and Blanchard's (1998) hypnotherapy trial. On the other side, Blanchard, Schwarz, Neff, and Gerardi (1988) reported an inverse relation between STAI trait anxiety and a composite IBS symptom reduction score (CPSR score) derived from patients' diaries. In a report on a separate sample using the same CBT protocol, Blanchard et al (1992a, b) reported lower likelihood of success with the presence of one or more Axis I disorders. Drossman et al. (2003) reported that their variety of