Psychodynamic interpersonal therapy and improvement in interpersonal difficulties in people with severe irritable bowel syndrome

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ABSTRACT

The aim of the present study was to assess the relationship between change in interpersonal difficulties with change in chronic pain, health status and psychological state in 257 Irritable Bowel Syndrome (IBS) patients in a randomized control trial comparing psychotherapy, antidepressant and usual care. We assessed at three time points interpersonal problems (IIP-32), abdominal pain and bowel symptoms, psychological distress (SCL-90), and health status (SF-36). Analysis included repeated measures (ANOVA) to assess change over time and multiple regressions to identify whether change in IIP was associated with outcome after controlling for psychological status. The main findings were: (1) difficulties with social inhibition and dependency were associated with longer disease duration; (2) change in mean IIP-32 over 15 months was significantly correlated with changes in pain, but these relationships were mediated by change in psychological distress; (3) change in IIP-32 was an independent predictor of improved health status at 15 months only in the psychotherapy group. These results indicate that improvement in interpersonal problems in IBS patients appear to be primarily associated with reduced psychological distress but, in addition, the association with improved health status following psychotherapy suggests that specific help with interpersonal problems may play a role in improving health status of patients with chronic painful IBS.

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1. Introduction

Irritable bowel syndrome (IBS) is a common chronic pain disorder which forms a majority of patients in gastroenterology clinics and often leads to high healthcare use and much time missed from work [15]. In common with other chronic pain patients, those with IBS have difficulties in interpersonal relationships [26,31], which relate to pain coping and outcome of treatment [37]. Several studies have found an association between insecure attachment and related interpersonal difficulties with poor pain self efficacy, anxiety and poor coping [4,29,30]. These have all been cross-sectional studies, however, and all these authors suggested examining whether improved personal relationships are associated with reduced pain and reduced disability [4,24], which is what we have tested in this study.

Patients with IBS are said to have difficulties with being assertive [26]. Such a submissive interpersonal style has been related to pain catastrophising [25], which is associated with soliciting support or empathy from others [4,24] and may relate to increased pain and disability [25]. One study suggested that difficulty with being assertive, which was associated with persistent and diarrhoea-predominant IBS, arose because the illness has a deleterious effect on interpersonal relationships but this study was cross-sectional and could not assess causality [26]. Furthermore the study did not control for psychological distress, which is correlated with chronic pain and interpersonal relations [27].

In our trial of patients with severe IBS we found that both antidepressants and psychotherapy led to improved heath status in the long term but there was no apparent difference between the treatments. The first aim of the present study was to assess whether changes in interpersonal difficulties, symptoms of Irritable bowel syndrome (IBS), health status and psychological state showed congruent changes over time.

Our second aim was a preliminary examination of whether the association between change in interpersonal relationships and outcome was different in different treatment groups. Both psychological treatments and antidepressants may help IBS patients [10,11,25,35]. Psychodynamic interpersonal therapy is designed to help people with their interpersonal difficulties, which may explain how it helps some people with IBS in addition to relieving depression and anxiety [16–19,21,33]. Antidepressants, on the

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other hand, may help IBS patients by relieving pain in addition to anxiety and depression [10,11]. No previous study has examined change in IIP in relation to outcome in IBS or chronic pain.

We tested the following hypotheses in patients with severe IBS:

(1) that improvement in interpersonal relationships over 15 months is associated with improvement in pain and disability, but these relationships are mediated by psychological distress.

(2) that improved health status, the outcome measure which showed greatest long-term change in our trial, is associated with improvement in interpersonal difficulties following both psychotherapy and antidepressant treatments.

Prior to testing these hypotheses we assessed (a) whether the factor structure of the brief IIP was similar in this population to previous studies and (b) the baseline relationships between the variables we tested in the longitudinal study.

2. Methods

For this study we used data that were collected during a randomised controlled trial of patients with severe, chronic IBS to assess the cost effectiveness of psychotherapy and antidepressants in comparison to treatment as usual [6]. We recruited from seven gastroenterology clinics in the UK all patients who fulfilled both ROME I criteria for IBS and the criteria for "severe" IBS. Rome I criteria require 3 months of continuous or recurring symptoms of: (1) abdominal pain, accompanied by pain relieved by defecation and associated with change in frequency or consistency of stool; (2) at least two of the following: irregular pattern of defecation, altered stool consistency, incomplete rectal evacuation and/or urgency or straining; abdominal bloating or distension, and/or mucus in stools [36]. "Severe" IBS refers to patients with duration of symptoms >6 months, failure to respond to "usual" medical treatment, including antispasmodics and laxatives or antidiarrheal medication administered for a minimum of 3 months and severe abdominal pain, defined as >59 on a visual analogue scale [13].

The trial involved random allocation of the patients to eight sessions of psychodynamic interpersonal therapy [16,18], or 3 months of treatment with 20 mg daily of the SSRI antidepressant, paroxetine, or routine care by gastroenterologist and general practitioner [6]. Patients allocated to psychotherapy received one long (approximately 2 h) and 7 shorter (45 min) individual sessions over 3 months. They were encouraged to discuss their symptoms in depth; emotional factors were explored, and links between symptoms and emotional factors were identified. Therapists were trained by a member of the study team (E.G.) using a manual and a videotaped training package; continued conformity by the therapist to the model was ensured by weekly supervision with E.G. [6]. After 3 months of treatment, all patients receiving psychotherapy or paroxetine returned to their general practitioner, who decided what further management was required over the next year. Patients were excluded from the trial if they had a psychotic disorder, severe personality disorder, active suicidal ideation or consumed more than 50 units of alcohol per week, but patients with other psychiatric disorders were included.

The assessments we quote in this study were made at baseline (entry to the trial), after 3 months of treatment and at 12 months after treatment was completed (i.e. 15 months after baseline). Full details of the trial have been reported previously [6], including the CONSORT details, and will not be repeated here.

The following self-administered questionnaires were completed by each participant at each time point. Severity of current *abdominal pain* was assessed using visual analogue scales taken from the McGill Pain Questionnaire, relating to the severity of "usual"

abdominal pain and its severity "today" [13]. In addition, each participant completed a daily diary recording the severity of their bowel symptoms for 14 days prior to each assessment. *Psychological distress* was measured using the Global Severity Index (GSI) of the SCL-90 [12]. *Health status* was measured using the Short Form-36 (SF-36) [39], which corresponds closely to patients' rating of the disruption their daily lives [20,40]. We used the physical component summary (SF-36-PCS) score as the main outcome variable; a low score indicates poor health status [38]. This is a composite score of the scales: physical function, role limitation physical, bodily pain and health perception.

For the assessment of interpersonal problems, the Inventory of Interpersonal Problems-32 (IIP-32) [2] was used. The IIP-32 is a self-report measure developed as a shortened version of the original 127-item Inventory of Interpersonal problems [22], aiming to assess the difficulties people experience in their interpersonal relationships and comprises eight subscales which have shown high internal consistency and confirmatory factor analysis has replicated the eight-factor structure [2]. We present results for baseline, 3 and 15 months later.

At the initial assessment only, a trained psychiatrist, who worked independent of treating clinicians and was blind to treatment group, assessed *psychiatric diagnosis* using the Schedules for Clinical Assessment in Neuropsychiatry (SCAN) [41]. The details of the IBS symptom pattern (diarrhoea- or constipation-predominant) and IBS duration were ascertained using the questionnaire of Drossman [36]. Diarrhoea-predominant IBS refers to patients who had more than three bowel movements a day or watery stools or urgency or having to rush to have a bowel movement whereas constipation-predominant IBS refers to patients who had fewer than three bowel movements a week or lumpy stools or straining during a bowel movement.

A history of sexual abuse was documented using the Sexual and Physical Abuse Questionnaire [14,28]. In this report sexual abuse refers to either forced touching or forced penetration (rape), against one's will either as a child or adult.

2.1. Statistical analysis

All the statistical analyses were performed using the Statistical Package for the Social Sciences (SPSS) 15.0 (SPSS Inc., Chicago, IL, USA) for Windows and Stata Statistical Software: Release 9 (College Station, TX: Statacorp LP. 2005). Summary statistics for all variables were calculated. Normality was tested by the Kolmogorov–Smirnov test [1].

Since we used the 32-item version of the IIP for the first time in IBS patients, a confirmatory principal component factor analysis was performed to confirm that the factorial structure of this version in IBS patients is comparable to that of the original version of the IIP-32 [2].

Univariate analyses to asses the independent associations between demographic, clinical or psychopathology variables and IIP scores used one-way analyses of variance, two-tailed *t*-tests, and Pearson's or Spearman's correlations as appropriate [1].

Repeated measures (ANOVA) for IIP mean score adjusted for baseline score was performed to test for a significant change of IIP over time (baseline, 3 months, and 15 months), and the relationship of this with treatment.

To test hypothesis 1, we assessed *change* in IIP with *change* in abdominal pain severity, bowel symptoms, psychological distress and health status between baseline and 15 months, adjusting for baseline scores with ANCOVA.

Multiple regression analyses were performed to assess whether SCL-90 global severity index score mediated the association of change in pain and bowel symptoms with change in interpersonal difficulties between trial entry and follow-up. These analyses used