defined by a 50 point reduction in IBS-SSS. Data, expressed as mean ± standard error, were compared statistically before and after treatment using paired t-tests.

Results Young patients fulfilling Rome III diagnostic criteria for IBS (n=26, median age 16 (range –8) years, n=17 (65%) female, mean duration of IBS 5.3 ± 0.9 years, n=11 IBS-D, n=6 IBS-C and n=9 IBS-mixed) completed the hypnotherapy programme. Mean baseline IBS-SSS was 321.5 ± 16.0. After hypnotherapy, n=23/26 (88%) responded, with an overall mean reduction in IBS-SSS of -160.9 ± 15.4 (P<0.0001), and n=19/26 (73%) achieved the FDA recommended outcome of ≥30% reduction in abdominal pain scores. Hypnotherapy also improved; mean non-colonic symptom score by 102.1 ± 15.0 (P<0.0001), mean HADS-anxiety by -3.0 ± 0.8 (P=0.0007), mean HADS-depression by -2.1 ± 0.6 (P=0.002), and improved mean QoL score by +89.7 ± 13.1 (P<0.0001).

Conclusion These data, which form one of the largest reported series of gut-focussed hypnotherapy in children and adolescents with severe IBS, suggest that this treatment is even more effective in this group of patients than in adults. Hypnotherapy in severe childhood IBS patients may therefore have a role in preventing further suffering in adult life, reducing healthcare utilisation and related costs with wider socioeconomic benefits. Furthermore, it allows many of them to return to full time education.

OWE-10 COGNITIVE BEHAVIOURAL THERAPY FOR IRRITABLE BOWEL SYNDROME: 24 MONTH FOLLOW-UP OF ACTIB TRIAL PARTICIPANTS

Introduction The ACTIB (Assessing Cognitive Behavioural Therapy (CBT) for IBS) randomised controlled trial (n=558) was a 3 arm multicentre trial which showed that telephone therapist-delivered CBT (TCBT) and web-based CBT (WCBT) with minimal therapist support were significantly more effective than treatment as usual (TAU) at reducing IBS symptom severity and impact at 12 months in adults with refractory IBS.

Methods A 24 month naturalistic follow-up of ACTIB participants. Participants were recruited from 74 primary care general practice (GP) surgeries and 3 secondary care gastroenterology outpatient clinics in the South of England and London, May 2014 to March 2016. 24 month data collection completed May 2018. TAU participants were given access to the WCBT website from 12 months. Co-primary outcome measures (IBS Symptom Severity Score (IBS SSS) and Work and Social Adjustment Scale (WSAS)). Formal trial arm comparisons were Intention-to-treat analyses by multiple imputation.

Results 57.9% (323/558) of participants randomised were followed up to 24 months. Only 10 TAU participants chose to access WCBT.

Preliminary results Compared to TAU (IBS SSS score 198 at 24 months), IBS SSS scores were 40.5 (95% CI (15.0 to 66.0)) points lower (p=0.002) in TCBT and 12.9 (95% CI -12.9 to 38.8) points lower (p=0.3) in WCBT at 24 months. Assessing IBS-SSS responders (participants with a clinically significant IBS SSS change (≥50 point) from baseline to 24 months: 84/119 (70.6%) were responders in TCBT, 62/99 (62.6%) in WCBT and 48/105 (45.7%) in TAU.Compared to TAU (WSAS score 7.6 at 24 months) WSAS was 3.1 (95% CI 1.3 to 4.9) points lower (p<0.001) in TCBT and 1.9 (95% CI 0.1 to 3.7) points lower (p<0.04) in WCBT. Patient enablement (responders): TCBT compared to TAU OR 8.3 (95% CI 4.2 to 16.4) p<0.001, WCBT to TAU OR 3.3 (95% CI 1.8 to 6.0) p=0.001; Hospital anxiety and depression scale (HADS) TCBT to TAU 3.1 (95% CI 1.6 to 4.7) p<0.001 and WCBT to TAU 95% CI 2.7 (1.0 to 4.4) p=0.002.

Conclusions At 24 months sustained benefits were seen in both CBT groups compared to TAU, particularly on impact of IBS symptoms. Some previous gains were reduced compared to 12 month follow-up in the intention-to-treat analysis. Complete case analysis indicated those who had adhered to CBT treatments maintained large clinically significant gains in both symptoms and impact at 24 months. Increasing access to CBT for IBS could achieve long term-benefits for patients.
had significantly worse median QoL scores (P=0.02), higher HADS-depression (P=0.005) and HADS-anxiety (P=0.05). By contrast, in those with quiescent UC, those with an FGID did not have different median HADS scores (depression P=0.15, anxiety P=0.62) or IBD-QoL scores (P=0.20), compared those without FGIDs.

Conclusion This study is one of the first to use Rome IV criteria in UC and confirms that the prevalence of FGIDs is high. Patients with active disease and overlapping functional symptoms appear to have worse QoL and more psychological distress compared to those with quiescent disease. Clinicians should therefore be vigilant to this functional overlap and treat both functional and inflammatory driven symptoms.

**Abstract OWE-12 Figure 1**

**OWE-12 FUNGAL FUMES IN FAECES – HIDDEN CULPRIT BEHIND PARKINSON’S DISEASE: A FECAL METABOLIC STUDY**

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**Introduction** Accumulating evidence implicates the brain gut axis in the pathogenesis of Parkinson’s disease (PD). Altered gut permeability may result in afferent vagal transport of an unknown antigen or toxin to the central nervous system, leading to the characteristic dopaminergic neurodegeneration. A study in fruit flies identified the possible role for fungal metabolites, for example 1-octen-3-ol, in a loss of dopamine activity. We investigated the hypothesis that such fungal metabolites might arise from the faeces. We present the results of an evaluation of the faecal metabolome by assessing volatile organic compounds (VOCs) in PD patients.

**Methods** Using solid phase micro-extraction and gas chromatography and mass spectrometry VOCs were extracted from faecal samples from 35 PD patients (69% male; age 67±8 years; disease duration 11±5 years) and 35 healthy controls (37% male; age 65±8 years). VOCs were identified using automated mass-spectral deconvolution and identification system software and the national institute of standards and technology library. Distinguishing compounds were identified using fold change and t-test and corrected for multiple comparisons; group associations were determined using principal components analysis (PCA) and dendrograms. Findings were compared among groups and correlated with main variables.

**Results** A mean of 63 VOCs were found from PD samples and 74 from controls (p<0.007). The abundance of VOCs in PD and all controls was compared: 33 differed, 7 of which persisted after correction for multiple comparison, including 2-octanone. PCA showed distinct clustering of groups by disease status (Figure 1). In PD, there was an increased abundance of 2-methyl-6-methylideneoct-2-ene, (6Z)-2,6-dimethyllocta-2,6-diene and 7-methyl-3-methylideneocta-1,6-diene and a decreased abundance of cyclohexanecarboxylic acid and methyl pentanoate. Several of the VOCs which increased in PD were metabolites, for example 1-octen-3-ol, in a loss of dopamine activity. The reasons for not meeting the Rome III criteria was only moderate (Kappa = 0.50). The reasons for not meeting the Rome IV criteria for IBS among those meeting the Rome III criteria are shown in Table 1. Of those people no longer meeting Rome IV criteria for IBS, 33 (11.5%) met Rome IV criteria for functional constipation, 118 (41.3%) functional diarrhoea, 68 (23.8%) functional abdominal bloating or distension, and 67 (23.4%) an unspecified functional bowel disorder. This meant that, of those individuals with Rome III IBS who did not meet the Rome IV criteria for IBS, only 11.5% were reclassified into another functional bowel disorder where licensed and evidence-based