



## A diet low in fermentable sugars and polyols improves symptoms in diarrhoea predominant irritable bowel syndrome

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Irritable bowel syndrome (IBS) is a functional gastrointestinal disorder that has a prevalence of 10–15% in industrialised countries<sup>(1)</sup>. Diarrhoea predominant irritable bowel syndrome (IBS-D) primarily affects the working population (females 20–40 years old)<sup>(1)</sup>. Fermentable oligosaccharides, monosaccharides and polyols (FODMAPs) cause bloating and loose stools through increased hydrogen gas and an osmotic gradient for increased water entry into the gut lumen<sup>(2)</sup>. A low FODMAP diet has been proven to reduce IBS-D symptoms; however, these reductions have not been quantified<sup>(2)</sup>.

Observe if the symptomatic benefit demonstrated in the literature could be reproduced in the North-East of England and to quantify the efficacy of a low FODMAP diet in IBS-D.

Symptom change according to the Birmingham IBS Symptom Questionnaire was recorded after 4 weeks<sup>(3)</sup>. Symptom severity was numerated for analysis: all of the time = 6; most of the time = 5; a good bit of the time = 4; some of the time = 3; a little of the time = 2; none of the time = 1. Statistical significance was calculated using Prism 6.0 (GRAPHPAD) by unpaired *t*-test.

Of 42 suitable patients 21 responded to the questionnaire, all were compliant with the diet for a minimum of 4 weeks. 10 reported complete resolution of symptoms. 15 patients saw an improvement in questionnaire symptom category in abdominal discomfort ( $-1.8 \pm 0.5$ ,  $p < 0.01$ ), 11 whilst sleeping ( $-0.9 \pm 0.4$ ,  $p < 0.05$ ) and 14 after eating ( $-1.4 \pm 0.6$ ,  $p < 0.05$ ). 13 experienced fewer loose bowel motions ( $-1.4 \pm 0.5$ ,  $p < 0.05$ ) and 13 experienced less urgency ( $-1.2 \pm 0.4$ ,  $p < 0.001$ ).

Antispasmodics and antidepressants improve IBS-D symptoms in 37% and 53% of patients respectively compared to the 71% of patients in this study implying that a low FODMAP diet is not only a safer treatment but also a more effective treatment<sup>(4)</sup>. However, due to the 50% response rate responder bias might have been present. The low diet is most effective at reducing abdominal discomfort it also significantly reduces loose bowel motions and urgency in IBS-D. The low FODMAP diet has been translated to clinical practice in the Northern region of England.

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