

Effects of synbiotics among constipated adults in Serdang, Selangor, Malaysia—a randomised, double-blind, placebo-controlled trial

ABSTRACT

Synbiotics approach complementarily and synergistically toward the balance of gastrointestinal microbiota and improvement in bowel functions. A randomised, double-blind, placebo-controlled study was conducted to examine the effects of a synbiotics supplement among constipated adults. A total of 85 constipated adults, diagnosed by Rome III criteria for functional constipation were randomised to receive either synbiotics (n = 43) or placebo (n = 42) once daily (2.5 g) in the morning for 12 weeks. Eight times of follow-up was conducted every fortnightly with treatment response based on a questionnaire that included a record of evacuation (stool frequency, stool type according to Bristol Stool Form Scale), Patients Assessment on Constipation Symptoms (PAC-SYM), and Patients Assessment on Constipation Quality of Life (PAC-QOL). There were no significant differences in stool evacuation, but defecation frequency and stool type in treatment group were improved tremendously than in placebo group. While the treatment group was reported to have higher reduction in severity of functional constipation symptoms, the differences were not statistically significant. Dietary supplementation of synbiotics in this study suggested that the combination of probiotics and prebiotics improved the functional constipation symptoms and quality of life although not significant. This was due to the high placebo effect which synbiotics failed to demonstrate benefit over the controls.

Keyword: Functional constipation; Rome III criteria; Bristol Stool Form Scale; Defecation frequency; Synbiotics; Probiotics; Prebiotics; *Lactobacillus plantarum* LP01; *Bifidobacterium lactis* BB12; Randomised controlled trial (RCT)