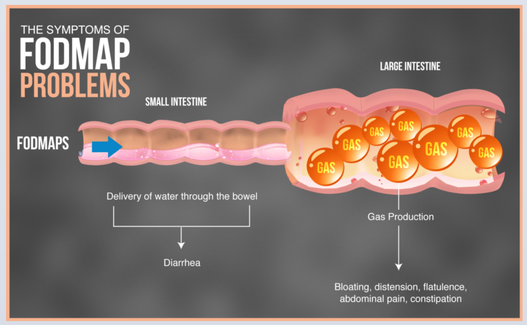
Can Low-FODMAP Diet Improve Quality of Life for Patients with IBS: An Integrative Research Review

Melissa Leiker BSN, RN, CCRC
Graduate Nursing Student
Lubbock Christian University

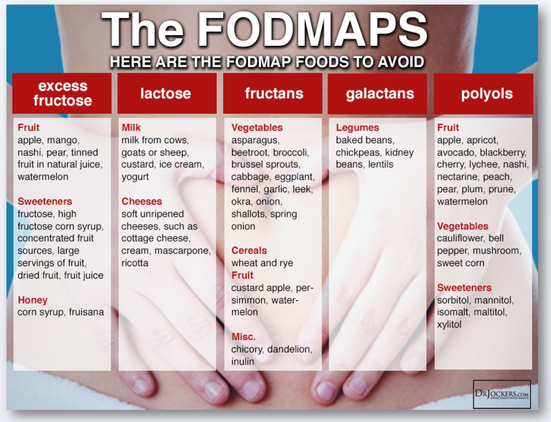
BACKGROUND & SIGNIFICANCE

- IBS is a functional GI disorder characterized by bloating, excessive gas, abdominal pain and altered bowel function (Ireton-Jones, 2017)
- IBS symptoms may lead to quality of life (QOL) impairment, increased financial burden due to missed days of work/treatments & social isolation (Varju, et al., 2017)
- In 2000, the US spent over 1.7 billion dollars on management of IBS symptoms (Staudacher et al., 2014)
- IBS is common, occurring in approximately 10% -20% of the population affecting predominately females (Maggard, et al., 2016)
- Treatment is symptom driven, 60-80% of patients seek dietary management (Staudacher H. M., 2017) (Wong, 2016)
- FODMAP (fermentable oligosaccharide, disaccharide, monosaccharide and polyol) are short-chain carbohydrates that are poorly absorbed in the small intestine leading to fermentation in the colon (Khan et al., 2015)
- Fermentation of FODMAP may cause abdominal pain, flatulence, diarrhea and altered intestinal motility & water volume (Staudacher, Irving, Lomer, & Whelan, 2014)
- Treatment guidelines: antidiarrheal, laxative, fiber supplement and high fiber diet, antispasmodic, low dose antidepressants (Wong, 2016)



https://www.google.com/search?q=fodmap+diet&rlz=1C1CHBF_enUS795US795&source=lnms&tbm=isch&sa=X&ved=0ahUKEwiZmKfe0Y_bAhVD66wKHR2eBQMQ_AUICigB&biw=1904&bih=881#imgrc=88-sZWG-V_1rOM:

HIGH FODMAP FOODS



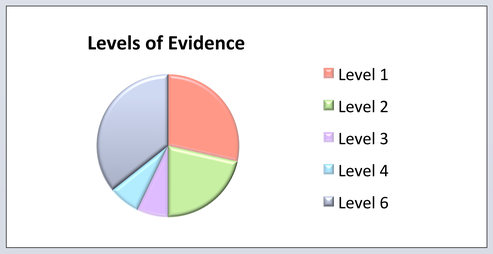
https://www.google.com/search?rlz=1C1CHBF_enUS795US795&biw=1904&bih=881&tbm=isch&sa=1&ei=D8D_WtCwK42wsAXAwZygAg&q=drjockers.com+low+fodmap&oq=drjockers.com+low+fodmap&gs_l=img.3...17538.19850.0.20964.11.11.0.0.0.0.69.670.11.11.0...0...1c.1.64.img..0.0.0....0.rRwrzRWkfsQ#imgrc=MTesye4Rw75xWM:

RESEARCH QUESTION

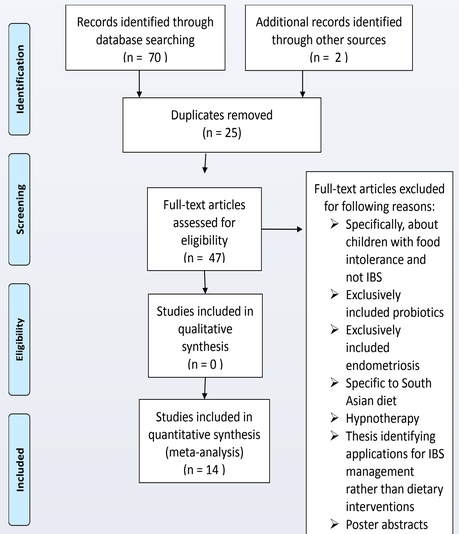
The purpose of this IRR is to determine if a Low-FODMAP Diet Improves Quality of Life for Patients with IBS.

METHODOLOGY

- Literature search of the following databases: CINHAL, Cochrane, PubMed, Medline, Health Source: Nursing/Academic Edition from 2013-2018
- Search terms used: "IBS," "irritable bowel syndrome," Low-FODMAP diet," and "quality of life"
- Two articles were mined from the references of selected articles
- Articles were appraised by utilizing the PRISMA 2009 checklist within the ERB Tool (Long & Gannaway, 2015) and Appendix G in Brown (2018)
- Seventy articles initially identified, fourteen included in review



LITERATURE SEARCH FLOW DIAGRAM



LITERATURE SYNTHESIS

- Evidence supports low-FODMAP diet improves IBS related bloating symptoms. Patient awareness and education empower patients to foster self-efficacy of symptom control (Wong 2016)
- Meta-analysis suggested low-FODMAP diet improves IBS symptoms and QOL. There were concerns about nutritional status in those not using dietitian assistance (Varju et al., 2017)
- A systemic review & meta-analysis suggested significant IBS-QOL scores post-low FODMAP dietary intervention (Marsh et al., 2015)
- In study of 90 patients experiencing IBS symptoms, 71% saw symptom improvement with a low-FODMAP diet (Ireton-Jones, 2017)
- Studies show FODMAP diet increases small bowel water secretion along with colonic gas production & volume therefore increasing colonic microbiota fermentation from available FODMAP (Staudacher H. M., 2017)

LITERATURE SYNTHESIS CONT.

- 68% reported symptom improvement after dietary interventions compared with 28% of control group (Staudacher et al., 2014)
- Retrospective cross-sectional study on long-term follow-up reported improved QOL & normal stool type after dietary interventions (Maggard et al., 2016)
- A randomized controlled trial showed little difference between low-FODMAP and traditional IBS diets. Future studies should focus on strategies for providing dietary advise (Bohn, et al., 2015)
- More research is needed on dietary long-term effects & efficacy/cost compared to current IBS management strategies (Khan et. al., 2015)

CLINICAL IMPLICATIONS

- Implementing dietary advise in clinical settings may help empower patients to improve symptoms & QOL. Improved symptoms may also decrease office and hospital visits

https://www.google.com/search?q=healthcare+costs&rlz=1C1CHBF_enUS795US795&source=lnms&tbm=isch&sa=X&ved=0ahUKEwjxJKnD3I_bAhUGSa0KHQEkAvQQ_AUICygC&biw=1904&bih=881#imgrc=9E3FPYsxljU3dM:

CONCLUSION

- Overall, this IRR suggests that implementing a low-FODMAP diet may improve IBS symptoms thus improving patient QOL. Although low-FODMAP diet decreases symptoms of IBS, a paucity of research regarding nutritional effects, management strategies, cost implications and dietary education exists.

REFERENCES

Available upon request.

Mleiker3069@lcu.edu