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Does Low-FODMAP Diet Decrease Symptoms and Improve Quality of Life in IBS? An Integrative Research Review

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Purpose:

Irritable bowel syndrome (IBS) is a common functional bowel disorder that causes symptoms of abdominal pain, bloating, gas, and diarrhea. IBS can lead to missed days of work and increased visits to the physician's office, thus increasing the use of healthcare facilities and overall cost to the patient. Evidence suggests a diet low in fermentable oligosaccharide, disaccharide, monosaccharide and polyolsaccharide (FODMAP) improves symptoms, thus improving the quality of life for patients with IBS. The purpose of this Integrated Research Review (IRR) is to determine if utilizing a low-FODMAP diet will lead to symptom and quality of life improvement in patients with IBS.

Methods:

An Integrative Research Review method was used for this study (Brown, 2014). Five databases were searched within the parameters of 2013 to 2018 to include: CINAHL, Cochrane, PubMed, Medline, Health Source: Nursing/Academic. The following search terms were used: "IBS" or "Irritable bowel syndrome" and "low FODMAP diet" and "quality of life." Two articles were identified through bibliographic mining from references. The search returned 70 articles. Forty-nine articles were initially excluded as 25 articles were duplicates and 24 did not meet inclusion criteria. Of the remaining 21 articles, 7 were excluded as two discussed probiotics rather than FODMAP, one included only children and discussed food intolerance rather than IBS, one was specific to South Asia, one discussed hypnotherapy, one was a thesis, and one was an opinion article. Fourteen articles were critically appraised using PRISMA Statement Guidelines and published fourteen articles were ultimately used in this review.

Results:

A meta-analysis reported significant improvement of IBS symptoms and quality of life when a low-FODMAP diet was implemented; however the study noted concerns regarding the nutritional impact of the diet (Varju et al., 2017). A systematic review by Marsh, Eslick, & Eslick showed significant improvement in IBS-QOL scores after a low FODMAP diet was implemented (2015). In randomized control trials (RCT) 71-68% of participants saw symptom improvement in the low-FODMAP diet intervention group (Ireton-Jones, 2014)(Staudacher et al., 2014). A study focusing on long-term follow-up reported an improvement in quality of life and stool type (Maggard et al., 2016). One RCT reported no significant improvement when a low-FODMAP diet was compared to traditional IBS dietary advice (Bohn, et al., 2015). Wong reported improvements in bloating symptoms with implementation of low-FODMAP diet and suggested patient awareness and education may foster self-efficacy of symptom control (2016).

Conclusion:

Overall, this integrative research review provided strong evidence that implementing a low-FODMAP diet does improve IBS symptoms, thus improving patient quality of life. The review also revealed that although the low-FODMAP diet decreases symptoms of IBS, there is little research regarding the nutritional impact of the diet. Khan, Nusrat, Khan, Nawras, & Beilefeldt, suggests that better understanding of the diet's long-term affect as well as compared efficacy and cost to current IBS management strategies is warranted (2015). This review of literature suggests future research should focus on the short and long-term nutritional impact of a low-FODMAP diet as well as the cost effectiveness of adding a dietitian to the clinical team.

Title:

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Keywords:

irritable bowel syndrome and/or IBS, low FODMAP diet and quality of life

References:

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Abstract Summary:

Irritable bowel syndrome (IBS) is a common functional bowel disorder that causes abdominal symptoms, missed work and increased visits to the physician's office. The purpose of this Integrated Research Review is to determine whether utilizing a low-FODMAP diet will lead to symptom and quality of life improvement.

Content Outline:

- I. Introduction and background on Irritable Bowel Syndrome (IBS)
 - A. Incidence
 - B. Signs and symptoms of IBS
 - C. Economic impact of IBS
- II. Systematic Review of the Literature
 - A. Key words (irritable bowel syndrome, IBS, low FODMAP diet, and quality of life)
 - B. Databases and range searched
 - C. Inclusion and exclusion criteria
- III. Synthesis of Research Findings on low-FODMAP diet as an intervention
 - A. Findings from level 1 evidence
 1. Meta-analyses
 2. Systemic reviews
 3. Randomized Control trials

B. Lower levels of evidence

IV. Conclusion

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Author Summary: Melissa Leiker has worked as a clinical research coordinator since 2011. She has assisted with over twenty investigator initiated studies and three sponsored trials. She is experienced in protocol design, study document development, regulatory document management and study coordination. She received her Associate Degree in Nursing from Midland College and her Bachelor degree in Nursing from Lubbock Christian University. She is currently enrolled as a Graduate student at Lubbock Christian university.