


**MCNER Webinar Series  
for Health Professionals**

**Psychological Considerations in the Dietary  
Management of DGBI  
(Disorders of Gut Brain Interaction)  
December 13, 2023**



Moderator:  
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Associate Director  
MacDonald Center for Nutrition Education and Research  
Villanova University M. Louise Fitzpatrick College of Nursing

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### Psychological Considerations in the Dietary Management of DGBI (Disorders of Gut-Brain Interaction)



Laurie Keefer, PhD, AGAF  
Professor of Medicine and Psychiatry  
Division of Gastroenterology  
Icahn School of Medicine at Mount Sinai



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**Psychological Considerations in the Dietary Management of Patients With DGBI**

Laurie Keefer, PhD, AGAF  
Professor of Medicine and Psychiatry  
Division of Gastroenterology

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**Disclosures**

- Consultant/scientific advisor to Ardelyx, Takeda, Pfizer, AbbVie, Coprata Health
- Co-founder and equity owner, Trellus Health
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- Board of Directors, Rome Foundation
- Research funding from NIH and PCORI

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### Key Topics I will address today

- Review of Disorders of Gut-Brain Interaction, the Biopsychosocial Framework of DGBI and the case for Integrated Care
- Review of Evidence-Based Diets in the Management of IBS
- Psychological Considerations:
  - Role of Food Allergy and Motility Testing in DGBI
  - Considerations in Food Elimination or Restriction in DGBI
- Recognizing Risk for Disordered Eating in DGBI
- Resources

HOME WORKING: GROUP ACCESS

Open

**Psychological Considerations in the Dietary Management of Patients With DGBI**

Helen Butler-Wang, PhD<sup>1,2</sup>, Jeffrey Saper, MD, PhD<sup>1,2</sup>, Kimberly H. Mann, MD, ScM<sup>1,2</sup> and Laurie Keebler, PhD<sup>1,2</sup>

In this article, an expert team of 2 gastro-psychologists, a dietitian, and an academic gastroenterologist provides insights into the psychological and social implications of evidence-based “special” dietary interventions for disorders of gut-brain interaction (DGBI). We review an evidence-based approach for recognizing patients’ adaptations for dietary interventions, considering the nutritional, psychological, behavioral, and social context in which a patient may find themselves managing their DGBI with dietary restriction. We also discuss how to identify indicators for and symptoms of associated restrictive food intake disorder, a growing concern in the DGBI population.

doi:10.1093/ibd/czab011

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**Part 1**  
Review of Disorders of Gut-Brain Interaction, the Biopsychosocial Framework of DGBI and the case for Integrated Care

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### Rome IV: Disorders of Gut-Brain Interaction

**Esophageal Disorders**

- Functional Chest pain
- Functional heartburn
- Reflux hypersensitivity
- Globus
- Functional Dysphagia

**Gallbladder and SO Disorders**

- Biliary pain
- Functional Gallbladder disorder
- Functional Biliary SO disorder
- Functional Pancreatic SO Disorder

**Anorectal Disorders**

- Fecal incontinence
- Functional anorectal pain
- Levator Ani Syndrome
- Proctalgia Fugax
- Functional defecation Disorder
- Dysynergic Defecation

**Gastroduodenal Disorders**

- Functional dyspepsia (PDS/EPS)
- Belching disorders
- Nausea & vomiting disorders
- Chronic nausea/vomiting disorders
- Cyclic vomiting syndrome
- Cannabinoid hyperemesis syndrome
- Rumination syndrome

**Bowel Disorders**

- Irritable Bowel Syndrome
- Functional constipation
- Functional diarrhea
- Functional abdominal bloating/distension
- Unspecified functional bowel
- Opioid-induced constipation

**Centrally Mediated Abdominal Pain**

- Centrally Mediated Abdominal Pain Syndrome
- Narcotic bowel syndrome

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NICE Dietary Guidelines

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Scheduled Meals

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8+ cups fluid

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Limit coffee, ETOH & carbonation

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≤ 3 fruits

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Limit resistant starch

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Limit fiber & bran

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Avoid sugar alcohols

<https://www.nice.org.uk/guidance/gs/chapter/7-Recommendations/dietary-and-lifestyle-advice>

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Part 3  
Common Challenges in  
the Dietary  
Management of DGBI

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Dietary Interventions only work for patients when they are considered in context




Figure 1. Shared decision-making around diet requires an understanding of the patient in the biopsychosocial context. The nutritional needs of a patient with DGBI, along with the specific symptoms being targeted, must always be considered when recommending a dietary intervention for a patient with DGBI. However, the psychological and quality-of-life risks and benefits as well as social determinants of health including access to food and nutritional support must not be separated from the shared decision-making process. DGBI, degrees of expert guidance.

Burton-Murray, Doerfler, Harer, Keefer, Psychological Considerations in the Dietary Management of Patients with DGBI, AJG, 2022; 117: 985-994

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### Scientific Premise for a Diet Change: Role of Food Allergy Testing

- Oral food challenge, skin prick testing, and serum Immunoglobulin E (IgE) testing are the gold standard methods of food allergy testing when **food allergy symptoms are present**
- Serum Immunoglobulin G (IgG) testing and commercially available food sensitivity panels are increasing in popularity but should be approached with extreme caution because of the **lack of clinical relevance and the negative impact** a positive result may have on dietary restriction and quality of life
- Serum IgG testing and antigen leukocyte antibody test are not recommended to diagnose food allergies, hypersensitivities, or intolerances because of low test specificity and poor reproducibility
- Diagnosis of a food allergy is associated with increased food anxiety, social isolation, and decreased quality of life
- Guided dietary therapy to identify food triggers is currently strongly recommended.

Murray, H. B., B. Doerfler, K. N. Harer, and L. Keefer. 2022. "Psychological Considerations in the Dietary Management of Patients With DGBI." *Am J Gastroenterol*, 117: 985-94.

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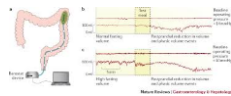
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### Scientific Premise for a Diet Change: Role of Gastrointestinal Motility Testing

- Abnormal testing can result in rash dietary changes (e.g., gastric emptying study resulting in recommendation of implementing a restrictive gastroparesis diet)
- Negative testing can result in disappointment and frustration because of a lack of identified etiology for the patient's suffering and symptoms.
- It is important for providers to set expectations regarding what a positive or negative test result will mean and reassure patients that their symptoms will continue to be treated, regardless of test results.



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### Dietary Interventions only work for patients when they are considered in context



Figure 1. Shared decision-making around diet requires an understanding of the patient in the biopsychosocial context. The nutritional needs of a patient with DGBI, along with the specific symptoms being targeted, must always be considered when recommending a dietary intervention for a patient with DGBI. However, the psychological and quality-of-life risks and benefits as well as social determinants of health including access to food and nutritional support must not be separated from the shared decision-making process. DGBI, degrees of expert guidance.

Burton-Murray, Doerfler, Harer, Keefer. Psychological Considerations in the Dietary Management of Patients with DGBI. *AJG*, 2022; 117: 985-994

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**Scientific premise for food elimination or restriction**

- Must consider nutrients and calories at risk
- Communicate expected Time frame or duration of the dietary intervention
  - Gluten-Free can be tried for 4-6 weeks and if not benefitting diet should be liberated
  - Low FODMAPS initial restrictive phase is intended for only 4-6 weeks, with a reintroduction period also short, between 3 and 6 months
- Behavioral risk factors, social implications (e.g., access, cost, and cultural practices), and the impact of the diet on quality of life.
  - Balanced diet recommendations (e.g., Mediterranean diet and NICE guidelines) have actually shown similar outcomes to the low FODMAP diet and have higher patient acceptability

Goal is the LEAST RESTRICTIVE DIET TO MANAGE SYMPTOMS

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**Example: Considerations in a Gluten Free Diet**

<p><b>Nutrients at Risk</b></p> <ul style="list-style-type: none"> <li>• Folic Acid</li> <li>• B6</li> <li>• Thiamin</li> <li>• Riboflavin</li> <li>• Niacin</li> <li>• Iron</li> </ul>	<p><b>Time Frame</b></p> <ul style="list-style-type: none"> <li>• 4-6 week trial; if not benefitting, liberate diet</li> </ul>	<p><b>Behavioral and QOL Impact</b></p> <ul style="list-style-type: none"> <li>• Risk for anxiety/somatization</li> </ul>
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Mazzoni L, Reale L, Spina M, et al. Compliant gluten-free children with celiac disease: An evaluation of psychological distress. *BMC Pediatr* 2011;11:46

\* Dietary Fiber is often reduced in GF diets and intake should be monitored

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**The effect of expectancy versus actual gluten intake on gastrointestinal and extra-intestinal symptoms in non-coeliac gluten sensitivity: a randomised, double-blind, placebo-controlled, international, multicentre study**

Mallat J-C, Gao J, Clavel L, Louvet P, Fumagalli G, Agreus L, Smedh U, Bjorn-Wikman M, Marisa A M, Housheer J, Gony van Rooij P, et al. *Gut* 2023;74:1000-1008. doi:10.1136/gut-2022-327000

www.thelancet.com/gastrohep Published online November 28, 2023 [https://doi.org/10.1016/S2468-1253\(23\)00317-5](https://doi.org/10.1016/S2468-1253(23)00317-5)

The combination of expectancy and actual gluten intake had the largest effect on gastrointestinal symptoms, reflecting a strong **nocebo effect**

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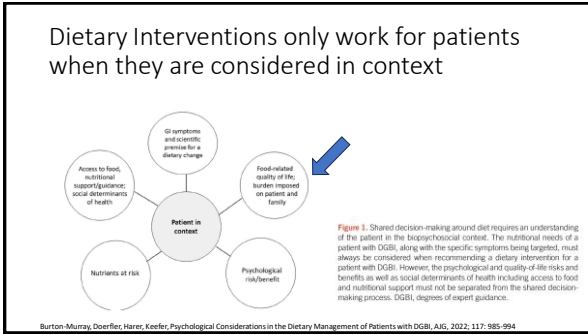
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**Review article**

### Irritable bowel syndrome and mental health comorbidity – approach to multidisciplinary management

Journal of Clinical Gastroenterology & Hepatology

**Box 1**

#### Diet-related anxiety

Individuals with irritable bowel syndrome (IBS) and co-occurring anxiety or depression can present with food-related distress. This distress can manifest as longstanding, unnecessary dietary restrictions, strongly held beliefs around food and reluctance to divert from these beliefs, and fear of eating out or in settings in which total dietary control is not possible. Patients with such anxieties should be provided with evidence-based advice on appropriate dietary restrictions and with information that debunks dietary myths. Dietitians can also work with individuals to set realistic expectations (for example, explaining that dietary restriction is not a panacea for improving gastrointestinal symptoms), educate them about worst case scenarios (if a 'forbidden' food is eaten, help them focus on what they can eat rather than what they cannot, and improve overall dietary diversity. Importantly, addressing diet-related anxiety can also have beneficial downstream effects on gastrointestinal symptoms. Referral to a specialist eating disorder dietitian is recommended for patients in whom food-related fear is pathological.

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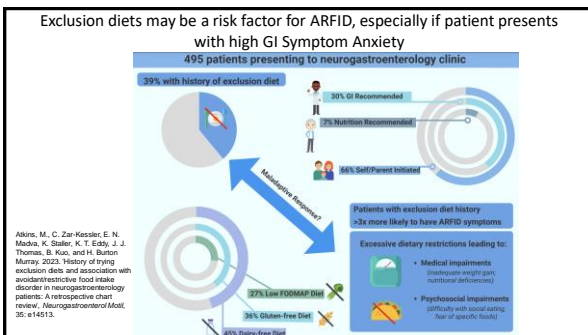
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### The vicious cycle of food restriction and GI symptoms

Werlang, M.E., et al., *Assessing for Eating Disorders: A Primer for Gastroenterologists*. Am J Gastroenterol, 2021. 116(1): p. 68-76.

**ARFID prevalence as high as 24% in Adult NeuroGI/Motility Patients**

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### DSM-5 Criteria for ARFID

- A. Persistent failure to meet nutritional needs, causing
  - Significant weight loss
  - Significant nutritional deficiency
  - Dependence on enteral/supplemental nutrition
  - Psychosocial impairment
- B. Not due to lack of available food
- C. No fear of weight gain or body image disturbance
- D. Not accounted for by other medical or psychiatric condition

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### 3 Prototypical ARFID Presentations

Sensory Sensitivity

Fear of Aversive Consequences

Lack of Interest

APA, 2013; Thomas et al., 2017 *Curr Psychiatry Rep*

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### Quick Assessment Questions

Over the last month...:	
<b>Sensory Sensitivity</b>	...have you been put off by food if it doesn't look "right" (e.g., because of the texture)
<b>Lack of interest</b>	...have you forgotten to eat or found it difficult to make time to eat?
<b>Fear of aversive consequences</b>	...have you been concerned that eating will make you ___ (symptom)?
	...have you limited the amount of food you eat or avoided foods to prevent gastrointestinal symptoms?

Assess if the above are associated with:  
 (1) Medical consequences (e.g., weight loss, supplemental nutrition)  
 (2) Psychosocial impairment (e.g., avoidance of school/work, social difficulties)

Bryant-Waugh, R. 2019. 'Avoidant/Restrictive Food Intake Disorder', *Child Adolesc Psychiatr Clin N Am*, 28: 557-65.

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### ARFID Screening: NIAS



Ficky 2-10



Appetite > 9



Fear > 10

- I don't like to try new foods [This item is new in NIAS 2.0]
- I dislike most of the foods that other people eat
- The list of foods that I like and will eat is shorter than the list of foods I won't eat
- I am not very interested in eating; I seem to have a smaller appetite than other people
- I have to push myself to eat regular meals throughout the day, or to eat a large enough amount of food at meals
- Even when I am eating a food I really like, it is hard for me to eat a large enough volume at meals
- I avoid or put off eating because I am afraid of discomfort, choking, or vomiting
- I restrict myself to certain foods because I am afraid that other foods will cause discomfort, choking, or vomiting
- I eat small portions and/or infrequent meals because I am afraid of discomfort, choking or vomiting

*If the patient screens positive:*  
 1. Rule out other ED.  
 2. Identify if medical and/or psychosocial problems are present - necessary for ARFID diagnosis.

Strongly Disagree (1)	Disagree (2)	Slightly Disagree (3)	Slightly Agree (5)	Agree (6)	Strongly Agree (7)
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Burton Murray, H. M., J. Dieler, H. F. Zickgraf, K. R. Becker, L. Brahmage, K. E. Eddy, and J. J. Thomas. 2021. 'Validation of the nine item ARFID screen (NIAS) subscales for distinguishing ARFID presentations and screening for ARFID.' *Int J Eat Disord*, 54: 1782-92.

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### SCOFF ("Yes" to 2+ indicates likely ED)



- Do you make yourself **S**ick because you feel uncomfortably full?
- Do you worry you have lost **C**ontrol over how much you eat?
- Have you recently lost **O**ver 15 pounds in a 3-month period?
- Do you believe yourself to be **F**at when others say you are too thin?
- Would you say that **F**ood dominates your life?

SCOFF will pick up classic shape/weight-related disorders, but not ARFID

Morgan, J. F., F. Reid, and J. H. Lacey. 2000. 'The SCOFF questionnaire: a new screening tool for eating disorders.' *West J Med*, 172: 164-5.

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Resources



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**FOOD**   
**THE MAIN COURSE**  
**TO DIGESTIVE HEALTH**


*A course dedicated to educating dietitians about the nutritional management of key digestive disorders*

Wednesday August 7th, 2024 - Friday, August 9th, 2024 at the Kensington Hotel in Ann Arbor, MI

In-person and virtual options available

Sponsored by the *Division of GI & Hepatology, Michigan Medicine*

<http://foodthemaincourse.com/>



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 **Diet & DGBI Interest Group**  
[wchey@umich.edu](mailto:wchey@umich.edu)

- The rapid increase in knowledge and widespread acceptance of diet interventions for DGBI has created unmet professional, educational, and research needs for a range of health care providers including physicians, dietitians, and advanced practice providers. We propose the **Rome Foundation Diet and Disorders of Gut-Brain Interaction Interest Group** to fulfill the following goals:

1. **Provide a professional home** where different types of HCPs with an interest in the role of diet in the pathogenesis and management of DGBI can interact, learn and collaborate with one another.
2. Create a **trusted source of the latest evidence-based information** on this rapidly evolving topic.
3. Promote the use of evidence-based diet treatments for DGBI through **high quality training workshops and educational webinars**.
4. Create and maintain an **up-to-date listing of HCPs** sortable by specific interest/s (clinical and/or research), ongoing research, interest in collaboration, and geographic location.
5. **Provide a link to the Rome Foundation Research Institute** to promote and conduct **cutting edge research** in the role of diet in DGBI

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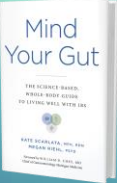
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**MIND YOUR GUT**


**THE SCIENCE-BASED, WHOLE-BODY GUIDE TO LIVING WELL WITH IBS**  
 BY KATE SCARLATA, MPH, RDN, AND MEGAN RIEHL, PSYD

Offering everything from science-based interventions to targeted mind-gut behavioral strategies, as well as delicious gut-soothing recipes and nutrition tips, *Mind Your Gut* combines diet and behavioral interventions for a full toolbox of therapeutic options for IBS.



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bit.ly/mindyourgutbook

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Patient friendly Resources




<https://giondemand.com>


Featured GI OnDEMAND Services




GI Nutrition



GI Psychology



Genetic Testing & Counseling



Education Programs

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Where are some good places to find psychotherapists in my community?

Resource	Website
Rome GastroPsych	<a href="https://romeipsych.org">https://romeipsych.org</a>
Psychology Today Therapist Finder	<a href="https://www.psychologytoday.com/us/therapists">https://www.psychologytoday.com/us/therapists</a>
American Psychological Association	<a href="https://locator.apa.org/">https://locator.apa.org/</a>
National Register of Health Service Psychologists	<a href="https://www.findapsychologist.org/">https://www.findapsychologist.org/</a>
Association for Behavioral & Cognitive Therapies	<a href="http://www.findcbt.org">http://www.findcbt.org</a>
National Eating Disorders Association	<a href="https://map.nationaleatingdisorders.org/">https://map.nationaleatingdisorders.org/</a>

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- A link to an evaluation will be sent within a day or two.
- Although completing an evaluation is not required, we truly appreciate your feedback.  
**If you do not see the evaluation, look in your spam folder.**
- CE certificates for RDs/RDNs/DTRs will be emailed to you within 2-3 days.



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## Q&A



Moderator:  
Lisa Diewald, MS, RDN, LDN  
[mcner@villanova.edu](mailto:mcner@villanova.edu)

*If you are an RD or RDN and have any questions or concerns about this continuing education activity, you may contact CDR directly at [QualityCPE@eastright.org](mailto:QualityCPE@eastright.org).*



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