Psychogastroenterology Research Review

September 2026 | Evidence update for health professionals

Key findings this month:

- Functional nausea in young people was rarely isolated and clustered with pain-related DGBI, anxiety, depression, disability and extra-intestinal symptoms.
- NIAS-positive ARFID-like symptoms were more common than chart-derived DSM-5-compatible ARFID in IBS, emphasising that screening is not diagnosis.
- Probable PTSD in gastroparesis was associated with more severe symptoms and psychosocial impairment, but not greater gastric emptying delay or impaired accommodation.
- Active IBD in older adults predicted worsening cognitive screening over follow-up, while delayed-recall deficits predicted later symptomatic activity.
- taVNS showed encouraging effects across four RCTs in functional dyspepsia, although protocol heterogeneity and short follow-up prevent firm implementation conclusions.

Studies at a glance:

- **Bermejo et al. —** Gluten intake and mental health**:** https://doi.org/10.3389/fnut.2026.1909893
- **Chang et al. —** Irritable bowel syndrome**:** https://doi.org/10.1038/s41572-026-00741-7
- **Cruijsen et al. —** Coeliac disease case report: No DOI reported in the provided reference list.
- **Dönicke et al. —** Mania-symptom trajectories: https://doi.org/10.1017/S0954579426101606
- **El-Chammas et al. —** Functional nausea: https://doi.org/10.1111/nmo.70447
- **Huang et al. —** Latent profiles in functional dyspepsia and IBS: https://doi.org/10.3389/fphar.2026.1759170
- **Jansen van Vuren et al. —** Diet and depression**:** https://doi.org/10.1155/da/2938819
- **Kochar et al. —** Cognition and active IBD**:** https://doi.org/10.14309/ajg.0000000000003965
- **Lee et al. —** BiomeBakery feasibility trial**:** https://doi.org/10.1016/j.jnha.2026.100939
- **Lin et al. —** Acupuncture and perioperative neurocognitive disorders: https://doi.org/10.1016/j.neuroscience.2026.08.012
- **Mikhael-Moussa et al. —** ARFID features in IBS**:** https://doi.org/10.1111/nmo.70456
- **Navarro-Bielsa et al. —** Sex differences in atopic dermatitis**:** https://doi.org/10.1016/j.ad.2026.104678
- **Simons et al. —** PTSD and gastroparesis**:** https://doi.org/10.1111/nmo.70449
- **Tan et al. —** Tryptophan metabolism and depression**:** https://doi.org/10.3389/fmicb.2026.1936353
- **Tu and Huang —** Constipation and mood disorders**:** https://doi.org/10.2147/IJGM.S634121
- **Xiao et al. —** taVNS for functional dyspepsia**:** https://doi.org/10.3389/fnins.2026.1876591
- **Xin et al. —** Tryptophol in chronic stress**:** https://doi.org/10.1016/j.trsl.2026.08.007
- **Xu et al. —** Engineered probiotic for colitis-associated depression**:** https://doi.org/10.1016/j.scib.2026.09.052

- **Yadav et al. —** Natural products in major depression: https://doi.org/10.2174/0113895575464832260917050501
- **Yan et al. —** Dysphagia after mUPPP**:** https://doi.org/10.1111/coa.70173
- **Zeng et al. —** Feeding method after ischaemic stroke**:** https://doi.org/10.1016/j.apmr.2026.05.012
- **Zhang et al. —** IBD transition to adult care**:** https://doi.org/10.1111/jocn.70550

Studies in more detail broken down by type

Systematic reviews, meta-analyses and guidelines:

Chang et al. (2026), Irritable bowel syndrome

APA citation: Chang, L., Corsetti, M., Chey, W. D., et al. (2026). Irritable bowel syndrome. *Nature Reviews Disease Primers, 12*(1), 64. https://doi.org/10.1038/s41572-026-00741-7

Study design: Authoritative disease primer/review. *Population:* People with IBS across the lifespan, drawing on international evidence.

Findings: IBS is presented as a heterogeneous DGBI involving motility, visceral sensitivity, barrier, neuroimmune, microbiome, central pain, stress and autonomic mechanisms. Diagnosis should be positive and symptom-based, supported by limited exclusionary testing. Management is individualised and stepwise, combining education, diet, medication and gut–brain behavioural therapies.

Implications: Supports integrated psychogastroenterology pathways and mechanism-informed, preference-sensitive care. *Limitations:* Narrative synthesis rather than a new systematic effect estimate; recommendations reflect a broad evidence base of variable quality.

Tu and Huang (2026), Constipation and mood disorders

APA citation: Tu, M., & Huang, Y. (2026). Gut-brain axis in comorbid constipation and mood disorders: Navigating the efficacy-tolerability dilemma through emerging evidence and future directions. *International Journal of General Medicine, 19*, 634121. https://doi.org/10.2147/IJGM.S634121

Study design: Narrative review based on searches of PubMed, Embase and Cochrane Library, 2015–2026. *Population:* People with constipation and comorbid anxiety or depression.

Findings: Evidence supports bidirectional association and implicates neural, microbial and inflammatory pathways. Conventional treatment may improve one condition while worsening the other; 5-HT4 agonists, psychobiotics and multidisciplinary models are promising but exploratory.

Implications: Treatment selection should consider both bowel and mood outcomes. *Limitations:* Heterogeneous designs, few large targeted RCTs and cautious interpretability of quantitative estimates.

Xiao et al. (2026), taVNS for functional dyspepsia

APA citation: Xiao, X., Qin, Z., Tian, J., et al. (2026). Transcutaneous auricular vagus nerve stimulation targets the brain-gut axis to treat functional dyspepsia: A scoping review of clinical evidence and mechanistic research. *Frontiers in Neuroscience, 20*, 1876591. https://doi.org/10.3389/fnins.2026.1876591

Study design: PRISMA-ScR/JBI scoping review. *Population:* Four RCTs involving 480 adults with functional dyspepsia and eight controlled rodent studies.

Findings: All four RCTs reported improvements in dyspeptic symptoms, gastric function and comorbid psychological or sleep outcomes versus controls, sustained for 4–12 weeks. Proposed mechanisms include autonomic, inflammatory, barrier, visceral sensitivity and HPA-axis pathways.

Implications: taVNS is a plausible non-invasive adjunct meriting adequately powered multicentre trials. *Limitations:* Only four clinical trials, heterogeneous stimulation parameters, limited follow-up and narrative rather than pooled synthesis.

Zhang et al. (2026), IBD transition to adult care

APA citation: Zhang, H. Q., Xu, J. B., Qiu, L., et al. (2026). Experiences and factors influencing the transition to adult care in adolescents with inflammatory bowel disease: A mixed-methods systematic review. *Journal of Clinical Nursing*. https://doi.org/10.1111/jocn.70550

Study design: Convergent-integrated mixed-methods systematic review of 41 studies, guided by the SMART model. *Population:* Adolescents with IBD, caregivers and healthcare providers.
Findings: Ten subthemes covered objective contextual factors and modifiable developmental, knowledge, skills, belief, goal, relationship and psychosocial factors.
Implications: Transition programs should be individualised, developmentally informed and family-inclusive, with psychosocial functioning treated as a modifiable target. *Limitations:* Integration across heterogeneous methodologies and healthcare systems may limit direct transferability.

Tan et al. (2026), Tryptophan metabolism and depression

APA citation: Tan, H., Pang, Y., Ji, Q., et al. (2026). Tryptophan metabolism: A critical bridge linking gut microbiota to depression. *Frontiers in Microbiology, 17*, 1936353. https://doi.org/10.3389/fmicb.2026.1936353

Study design: Narrative mechanistic review. *Population:* Human and preclinical depression evidence involving gut microbiota and tryptophan pathways.
Findings: The review describes serotonin, kynurenine and microbial indole pathways as candidate links among dysbiosis, inflammation, barrier function and depression.
Implications: Supports biomarker-oriented studies integrating multi-omics and neuroimaging. *Limitations:* Clinical translation is constrained by heterogeneity, strain specificity and insufficient dynamic monitoring.

Lin et al. (2026), Acupuncture and perioperative neurocognitive disorders

APA citation: Lin, K., Jia, S., Liu, Y., et al. (2026). From bench to bedside: Current evidence and prospects for acupuncture in managing perioperative neurocognitive disorders. *Neuroscience, 615*, 55–65. https://doi.org/10.1016/j.neuroscience.2026.08.012

Study design: Narrative review. *Population:* Perioperative patients at risk of delirium or cognitive dysfunction, plus mechanistic evidence.
Findings: Proposes multi-target effects involving microbiota, metabolites, neural circuits, inflammation and gut–brain signalling.
Implications: Generates hypotheses for mechanistically enriched perioperative trials. *Limitations:* Peripheral to core psychogastroenterology; the abstract provides no pooled effect estimates or definitive clinical efficacy evidence.

Yadav et al. (2026), Natural products in major depression

APA citation: Yadav, A. K., Sah, B. K., Ahmad, F., Jamwal, V., & Sahu, S. K. (2026). Emerging role of natural products and dietary supplements in major depressive disorder: Therapeutic and mechanistic insights. *Mini-Reviews in Medicinal Chemistry*. https://doi.org/10.2174/0113895575464832260917050501

Study design: Broad narrative review. *Population:* People with major depressive disorder and supporting mechanistic literature.

Findings: Reviews natural compounds and supplements acting through neurotransmission, HPA-axis, oxidative, inflammatory and gut–brain pathways.

Implications: Identifies adjunctive hypotheses for future trials. *Limitations:* Peripheral to GI populations; search included Google Scholar, dissertations and monographs, and the abstract does not report formal bias assessment or quantitative synthesis.

Intervention and clinical trials:

Lee et al. (2026), BiomeBakery feasibility trial

APA citation: Lee, Y., Colombage, R. L., Hall, C. V., Lamport, D. J., Williams, C. M., & Hepsomali, P. (2026). Effects of a prebiotic fibre-enriched bread in older adults: A randomised, placebo-controlled, parallel-groups feasibility study (BiomeBakery). *Journal of Nutrition, Health & Aging, 30*(10), 100939. https://doi.org/10.1016/j.jnha.2026.100939

Study design: Double-blind placebo-controlled feasibility RCT, 12 weeks. *Population:* 53 community-dwelling adults aged 60–80 with low fibre intake and no dementia.

Findings: The fibre group showed reduced hostility, but most mood, cognitive, GI and biomarker outcomes were unchanged; memory and HDL findings favoured placebo.

Implications: Larger trials require clearer mechanistic endpoints and should not assume broad psychobiological benefit. *Limitations:* Small feasibility sample, multiple outcomes, selective signal, short duration and company employee/shareholder conflict disclosed.

Zeng et al. (2026), Feeding method after ischaemic stroke

APA citation: Zeng, H., Zhang, S., Zuo, T., et al. (2026). Effects of oro-esophageal versus nasogastric feeding on mental health in ischemic stroke: A randomized controlled study. *Archives of Physical Medicine and Rehabilitation, 107*(10), 2779–2787. https://doi.org/10.1016/j.apmr.2026.05.012

Study design: Open-label, two-hospital RCT with 14-day intervention and day-60 follow-up. *Population:* 156 stroke survivors with dysphagia requiring enteral feeding.

Findings: Oro-esophageal feeding produced more favourable trajectories for anxiety, depression, self-efficacy, isolation and fatigue than nasogastric feeding.

Implications: Feeding modality may affect psychological recovery and warrants consideration in multidisciplinary rehabilitation. *Limitations:* Open-label design, specialised population and limited relevance to DGBI; the abstract does not establish blinding of outcome assessment.

Xu et al. (2026), Engineered probiotic for colitis-associated depression

APA citation: Xu, J., Shi, T., Qian, D., et al. (2026). Engineered *E. coli* Nissle 1917 alleviates colitis-associated depression via gut-brain axis restoration. *Science Bulletin*. https://doi.org/10.1016/j.scib.2026.09.052

Study design: Preclinical therapeutic and mechanistic experiment. *Population:* Murine colitis models.

Findings: Engineered bacteria delivering TNFα-neutralising nanobodies and remodelled microbial GABA pathways improved intestinal pathology and depression-like behaviour beyond conventional anti-TNF treatment in mice.

Implications: Demonstrates a dual gut and neurobehavioural treatment concept. *Limitations:* Animal model, engineered live-biotherapeutic safety and manufacturing issues, and no evidence of human efficacy.

Xin et al. (2026), Tryptophol in chronic stress

APA citation: Xin, Y., Guan, S., Si, S., et al. (2026). Microbiota-derived tryptophol attenuates chronic stress-induced pain- and depression-like phenotypes in female mice via colonic aryl hydrocarbon receptor signaling through reduced neuroinflammation. *Translational Research, 297*, 55–70. https://doi.org/10.1016/j.trsl.2026.08.007

Study design: Preclinical stress, faecal-transfer and pharmacological experiment. *Population:* Female and male mice exposed to chronic restraint stress.

Findings: Tryptophol improved pain- and depression-like phenotypes in females but not males under the tested regimen; GI-specific AHR antagonism abolished benefit.

Implications: Highlights sex-sensitive microbial-metabolite mechanisms connecting enteric and neuroinflammation. *Limitations:* Animal behaviour cannot be equated with human symptoms; sex-specific effects and dosing require replication.

Observational and qualitative research:

Mikhael-Moussa et al. (2026), ARFID features in IBS

APA citation: Mikhael-Moussa, H., Aupetit, A., Guérin, O., et al. (2026). When food avoidance meets compatible diagnostic criteria: Avoidant/restrictive food intake disorder features in irritable bowel syndrome. *Neurogastroenterology & Motility, 38*(10), e70456. https://doi.org/10.1111/nmo.70456

Study design: Retrospective cross-sectional study with questionnaire data and medical-chart review. *Population:* 326 adults with Rome IV IBS in tertiary care.

Findings: 47.5% screened positive on at least one NIAS-Fr subscale, while 33.4% met the study's chart-derived DSM-5-compatible definition. Depressive symptoms and IBS severity were independently associated with compatible ARFID.

Implications: Positive NIAS screening requires diagnostic follow-up and assessment of impairment, differential eating disorders and GI context. *Limitations:* Single tertiary centre, retrospective chart algorithm rather than a standardised diagnostic interview, cross-sectional associations and no causal inference.

Simons et al. (2026), PTSD and gastroparesis

APA citation: Simons, M., Hokr, E., Loesch, J., et al. (2026). PTSD is associated with severity of upper GI symptoms in patients with gastroparesis. *Neurogastroenterology & Motility, 38*(10), e70449. https://doi.org/10.1111/nmo.70449

Study design: Cross-sectional tertiary-care analysis. *Population:* 207 patients with gastroparesis; 93% female and 93% White.

Findings: 28% screened positive for probable PTSD. PTSD was associated with greater symptom and psychosocial burden, but not delayed gastric emptying or impaired accommodation; reduced myoelectric activity was observed.

Implications: Trauma-informed screening and trials of trauma-focused treatment are justified. *Limitations:* Screening rather than diagnostic interview, cross-sectional design, demographically narrow tertiary sample and possible confounding.

Huang et al. (2026), Latent profiles in FD and IBS

APA citation: Huang, Z., Lyu, Z., & Liu, F. (2026). Exploring the psychogastroenterology patterns of functional dyspepsia and irritable bowel syndrome comorbidities based on latent profile analysis. *Frontiers in Pharmacology, 17*, 1759170. https://doi.org/10.3389/fphar.2026.1759170

Study design: Retrospective cross-sectional latent-profile analysis using SEM, IRT and adaptive testing. *Population:* 996 patients with FD or IBS.

Findings: A five-dimension model yielded seven latent profiles representing heterogeneous GI, systemic, psychological and environmental-sensitivity patterns.

Implications: Multidimensional phenotyping may support personalised formulation beyond anatomical diagnoses. *Limitations:* Retrospective, cross-sectional, self-report intensive and requires external replication and evidence that profiles change treatment outcomes.

Kochar et al. (2026), Cognition and active IBD

APA citation: Kochar, B., Faye, A. S., Araka, E., et al. (2026). The bidirectional relationship between cognitive function and active inflammatory bowel disease. *American Journal of Gastroenterology, 121*(10), 2513–2521. https://doi.org/10.14309/ajg.0000000000003965

Study design: Multicentre prospective observational study with follow-up within one year. *Population:* 356 adults aged 60–89 with IBD.

Findings: 42% screened positive for cognitive impairment at baseline. Active IBD predicted worsening MoCA scores, while delayed-recall deficits predicted symptomatic activity at follow-up.

Implications: Cognitive screening, particularly delayed recall, may be useful in older IBD care and supports integrated management of disease activity and cognition. *Limitations:* Screening is not diagnosis, observational bidirectionality remains vulnerable to residual confounding, and follow-up timing varied within routine care.

Bermejo et al. (2026), Gluten intake and mental health

APA citation: Bermejo, D. G., Molina-López, A., Domínguez-Balmaseda, D., & García-Pérez-de-Sevilla, G. (2026). Gluten intake and its possible relationship with pain, skin symptoms, and mental health in the Spanish population: An observational study. *Frontiers in Nutrition, 13*, 1909893. https://doi.org/10.3389/fnut.2026.1909893

Study design: Online cross-sectional observational study. *Population:* 526 Spanish adults without coeliac disease or gluten intolerance; 85% women.

Findings: Gluten intake correlated weakly with stress, anxiety, depression and insomnia; no pain difference was found.

Implications: Findings are hypothesis-generating only and should not support gluten restriction for mental health. *Limitations:* Convenience sample, cross-sectional self-report, little representativeness, no energy adjustment, and confounding by fructans and other wheat components.

Jansen van Vuren et al. (2026), Diet and depression

APA citation: Jansen van Vuren, E., O'Neil, A., Ashtree, D. N., et al. (2026). Cross-sectional and longitudinal associations between dietary intake and depressive symptoms in young South African adults: The African-PREDICT Study. *Depression and Anxiety, 2026*, 2938819. https://doi.org/10.1155/da/2938819

Study design: Five-year prospective cohort with cross-sectional and longitudinal modelling. *Population:* 1,039 adults aged 20–30 at baseline; 551 at follow-up.

Findings: Milk intake predicted lower incident depression in an energy-adjusted model. Several cross-sectional dietary associations weakened after sociodemographic adjustment.

Implications: Socioeconomic context must be incorporated into nutritional psychiatry interpretations. *Limitations:* Peripheral to GI disease, substantial attrition, multiple model specifications and sensitivity of findings to adjustment.

Yan et al. (2026), Dysphagia after mUPPP

APA citation: Yan, Y., Shi, R., Wang, Q., et al. (2026). Characteristics, risk factors, and long-term outcomes of dysphagia following modified uvulopalatopharyngoplasty: A mixed-methods study. *Clinical Otolaryngology*. https://doi.org/10.1111/coa.70173

Study design: Prospective mixed-methods observational study. *Population:* 120 patients undergoing surgery for obstructive sleep apnoea.

Findings: Dysphagia was common early and persisted in a minority at 12 months; GERD and anxiety/depression were among four independent risk factors.

Implications: Supports combined symptom and instrumental swallowing assessment and attention to psychological status. *Limitations:* Surgical dysphagia population rather than DGBI, observational risk-factor analysis and limited generalisability.

Cruijsen et al. (2026), Coeliac disease case report

APA citation: Cruijsen, M. M., Pullens, H. J. M., Suijker, M. H., et al. (2026). Consequences of celiac disease in an unaccompanied minor Eritrean refugee: Severe intramedullary hemolytic anemia due to vitamin B12 deficiency. *Nederlands Tijdschrift voor Geneeskunde, 170*, D8971.

Study design: Case report. *Population:* One 16-year-old unaccompanied Eritrean refugee.

Findings: Coeliac disease with chronic gastritis, B12 deficiency and severe anaemia improved after transfusion, supplementation, gluten-free diet and multidisciplinary follow-up.

Implications: Highlights culturally responsive, coordinated assessment of nutritional, GI and psychosocial needs. *Limitations:* Single case, no comparator and no DOI reported in the alert.

Navarro-Bielsa et al. (2026), Sex differences in atopic dermatitis

APA citation: Navarro-Bielsa, A., Gilaberte, Y., Carrascosa, J. M., et al. (2026). Analysis of the influence of sex in 507 patients with moderate-to-severe atopic dermatitis: Spanish Atopic Dermatitis Registry (BIOBADATOP). *Actas Dermo-Sifiliográficas, 117*(9), 104678. https://doi.org/10.1016/j.ad.2026.104678

Study design: Prospective registry analysis. *Population:* 507 adults receiving systemic treatment for moderate-to-severe atopic dermatitis.

Findings: Women reported more anxiety, depression, pruritus burden and GI adverse events; men showed slightly higher clinician-rated severity and IgE.

Implications: Supports sex-aware whole-person assessment. *Limitations:* Dermatology rather than psychogastroenterology population, multiple comparisons and observational associations.

Paediatric research:

El-Chammas et al. (2026), Functional nausea

APA citation: El-Chammas, K., Hagenstein, L., Chogle, A., et al. (2026). Functional nausea is not just nausea: A multi-center, cross-sectional study of children and young adults. *Neurogastroenterology & Motility, 38*(10), e70447. https://doi.org/10.1111/nmo.70447

Study design: Seven-centre cross-sectional registry study. *Population:* 292 patients aged 8–21 with Rome IV DGBI; 50 met functional nausea criteria.

Findings: Functional nausea overlapped strongly with functional dyspepsia and IBS and was associated with more pain, anxiety, depression, somatisation, disability, dizziness, migraine and poorer global health.

Implications: Assessment should extend beyond nausea to co-occurring DGBI, mental health, disability and extra-intestinal symptoms. *Limitations:* Cross-sectional specialist-clinic registry, small functional-nausea subgroup and no causal or prognostic inference.

Dönicke et al. (2026), Mania-symptom trajectories

APA citation: Dönicke, J., Cooper, R., Soehner, A., & Jalbrzikowski, M. (2026). Risk factors associated with longitudinal trajectories of mania symptoms in youth. *Development and Psychopathology, 38*(4), 1940–1951. https://doi.org/10.1017/S0954579426101606

Study design: Two-year longitudinal latent-growth mixture analysis. *Population:* 10,474 participants aged 9–10 at baseline in the ABCD study.

Findings: Three mania-symptom trajectories were identified. IBS symptoms were one of several physical-health factors associated with more severe trajectories alongside broad mental-health, sleep, cognitive and family factors.

Implications: Supports broad biopsychosocial risk assessment in youth. *Limitations:* IBS was not the central outcome, associations are non-specific, trajectory modelling is sample-dependent and does not establish causality.

Digital and telehealth interventions:

No directly relevant digital or telehealth intervention study was included in this month's research review. The IBS primer identifies digital health as an emerging precision-care direction, but the alert contributes no trial evidence on app-based CBT, remotely delivered gut-directed hypnotherapy, telepsychology or digital symptom monitoring.

Note: This newsletter was compiled from a PubMed search covering the past 30 days, with studies collated and summarised using Copilot. We apologise for any omissions or errors.