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EFFICACY OF ANTIDEPRESSANTS IN THE TREATMENT OF IRRITABLE BOWEL SYNDROME: A SYSTEMATIC REVIEW

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ABSTRACT

Background: Irritable bowel syndrome (IBS) is a disorder of gut–brain interaction in which antidepressants are used to modulate pathways involved in symptom generation. Evidence for their efficacy remains heterogeneous across drug classes and outcomes.
Aim: To systematically evaluate the efficacy of antidepressants in the treatment of IBS across pharmacological classes and outcome domains.
Methods: The methodology and reporting structure of this review were informed by the PRISMA framework. Literature searches were conducted in PubMed and Google Scholar to identify studies evaluating antidepressants in adults with irritable bowel syndrome diagnosed according to Rome criteria. Randomized controlled trials were considered the primary source of evidence and were supplemented, where relevant, by open-label, mechanistic, and exploratory studies. Eligible studies reported validated clinical outcomes, including IBS symptom severity, abdominal pain, global improvement, and health-related quality of life. Owing to differences in study design, interventions, and outcome measures, findings were synthesized qualitatively.
Results: Tricyclic antidepressants (TCAs) demonstrated the most consistent signal of benefit, particularly for IBS symptom severity, global improvement, and abdominal pain. Selective serotonin reuptake inhibitors (SSRIs) showed inconsistent findings across trials, with effects varying by outcome measure and study design. Evidence for serotonin–norepinephrine reuptake inhibitors (SNRIs) was limited, often derived from add-on or open-label studies, although some randomized trials reported improvements in symptom severity and quality of life. Data for other antidepressants were restricted to a small number of RCTs with endpoint-specific effects. Variability in outcome measures, including IBS-SSS, adequate relief, and quality-of-life instruments, contributed to heterogeneity in reported treatment effects.
Conclusions: Antidepressants appear to have a role in IBS management, with the most consistent evidence observed for TCAs. Findings for SSRIs are inconclusive, while evidence for SNRIs and other agents remains limited. Interpretation is constrained by variability in outcome measures and study design. Further well-designed RCTs using standardized endpoints are required to better define the role of antidepressants in IBS.

KEYWORDS

Irritable Bowel Syndrome; Antidepressants; Gut–Brain Interaction; Tricyclic Antidepressants; Selective Serotonin Reuptake Inhibitors; Serotonin-Norepinephrine Reuptake Inhibitors Neuromodulators

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Introduction

Irritable bowel syndrome (IBS) is a chronic disorder of gut–brain interaction characterized by recurrent abdominal pain associated with altered bowel habits, in the absence of a definitive diagnostic biomarker (Drossman, 2016; Ford et al., 2019). Its clinical presentation is heterogeneous, with symptoms varying across constipation-predominant, diarrhea-predominant, mixed, and unclassified subtypes (Drossman, 2016; Oka et al., 2020). IBS is common worldwide, although prevalence estimates differ substantially according to diagnostic criteria, with pooled rates of 9.2% using Rome III criteria and 3.8% using Rome IV criteria (Oka et al., 2020). Beyond symptom burden, IBS is associated with impaired health-related quality of life, psychological comorbidity, work impairment, and increased healthcare utilization (Oka et al., 2020).

Current models conceptualize IBS as a dysregulation of bidirectional gut–brain communication involving neural, neuroendocrine, immune, and gastrointestinal sensory–motor pathways. Altered interactions between the central and enteric nervous systems are thought to contribute to visceral hypersensitivity and abnormal pain processing in IBS. Serotonin plays a central role within this gut–brain axis by regulating gastrointestinal motility, secretion, and visceral perception (Kilkens et al., 2005; Mayer et al., 2014). Experimental studies further support a potential role of serotonergic and noradrenergic modulation in

gastrointestinal sensorimotor function and visceral sensitivity (Chial et al., 2003). Collectively, these findings provided the physiological rationale for the use of antidepressants in IBS through both central and peripheral mechanisms.

Despite extensive investigation, the efficacy of antidepressants in IBS remains uncertain and appears to vary across pharmacological classes and outcome domains. Meta-analytic evidence suggests that tricyclic antidepressants demonstrate the most consistent benefit for global IBS symptoms and abdominal pain, whereas findings for selective serotonin reuptake inhibitors are less uniform across randomized trials (Ford et al., 2019). Evidence for serotonin–norepinephrine reuptake inhibitors remains comparatively limited and methodologically heterogeneous. In addition, substantial variability exists in the outcome measures used in IBS trials, including IBS symptom severity scores, adequate relief measures, abdominal pain ratings, and quality-of-life instruments. Real-time assessment studies further suggest that conventional retrospective symptom measures may incompletely capture symptom fluctuations and treatment effects in IBS (Vork et al., 2019). Current guideline recommendations acknowledge a potential role for antidepressants and other neuromodulators in IBS management while emphasizing the limitations and heterogeneity of the available evidence base (Lacy et al., 2021). Consequently, uncertainty remains regarding the efficacy of antidepressants across IBS populations and clinical outcome domains (Ford et al., 2019; Lacy et al., 2021).

The aim of this systematic review was to evaluate the efficacy of antidepressants in the treatment of irritable bowel syndrome across different pharmacological classes, including tricyclic antidepressants, selective serotonin reuptake inhibitors, serotonin–norepinephrine reuptake inhibitors, and other antidepressant agents. In addition, this review sought to assess heterogeneity in clinical outcomes and endpoint selection across studies in order to better characterize the current evidence base for antidepressant therapy in IBS.

Methodology

Study design

The methodology and reporting structure of this review were informed by the PRISMA framework.

Eligibility criteria

Eligibility criteria were defined using a PICO-based framework. The population comprised adults with irritable bowel syndrome diagnosed according to Rome II–IV criteria. Interventions included antidepressants, specifically tricyclic antidepressants (TCAs), selective serotonin reuptake inhibitors (SSRIs), serotonin–norepinephrine reuptake inhibitors (SNRIs), and other agents, including mirtazapine and vortioxetine. Comparators included placebo, active comparators, or baseline assessments in open-label studies. Outcomes included validated measures of IBS symptom severity, abdominal pain, global improvement, health-related quality of life, bowel habits, and physiological parameters.

Randomized controlled trials evaluating clinical efficacy were considered the primary source of evidence. Because randomized evidence was limited for certain antidepressant classes, open-label, mechanistic, and exploratory studies were included as supplementary evidence. Eligible studies were limited to full-text English-language publications conducted in adult IBS populations. Animal studies, studies not involving IBS, studies not evaluating antidepressants, and studies assessing only acute intravenous drug effects in healthy volunteers were excluded.

Information sources and search strategy

Literature searches were conducted in PubMed and Google Scholar. Search terms combined IBS-related and antidepressant-related keywords, including “irritable bowel syndrome,” “IBS,” “antidepressants,” “TCA,” “SSRI,” “SNRI,” and individual drug names. Reference lists of relevant articles were also screened to identify additional studies.

Study selection

Titles and abstracts were screened, followed by full-text review based on predefined eligibility criteria.

Data extraction

Extracted data included study design, population characteristics, IBS subtype and diagnostic criteria, intervention details (drug, dose, and treatment duration), comparator, outcome measures, and main findings.

Outcomes

Primary outcomes included IBS symptom severity and global improvement. Secondary outcomes included abdominal pain, health-related quality of life, bowel habits, and physiological or mechanistic measures.

Study quality

Study quality was assessed descriptively with regard to study design, randomization, blinding, sample size, and completeness of outcome reporting. Randomized controlled trials were considered higher-level evidence than open-label, exploratory, or mechanistic studies. A formal risk-of-bias assessment was not performed because the review incorporated studies with differing designs.

Data synthesis

Owing to differences in study design, interventions, comparators, and outcome measures, findings were synthesized qualitatively. Studies were grouped by antidepressant class, with emphasis placed on randomized controlled trials. Meta-analysis was not performed.

Results

1. Tricyclic antidepressants (TCAs)

Five studies evaluated TCAs in IBS, primarily amitriptyline and imipramine, including randomized placebo-controlled trials, one mechanistic study, and one open-label physiological study (Abdul-Baki et al., 2009; Ford et al., 2023; Morgan et al., 2005; Talley et al., 2008; Thoua et al., 2009).

Ford et al. (2023) conducted a randomized, double-blind, placebo-controlled phase 3 trial in primary care, including 463 adult patients with IBS diagnosed according to Rome IV criteria and persistent symptoms despite first-line treatment. Amitriptyline was initiated at 10 mg nightly with titration up to 30 mg/day. The primary endpoint was IBS Severity Scoring System (IBS-SSS) at 6 months; in the intention-to-treat analysis, IBS-SSS scores were lower in the amitriptyline group compared with placebo (mean difference −27.0; 95% CI −46.9 to −7.1; $p = 0.0079$), with similar findings at 3 months. At 6 months, global improvement was reported more frequently, including SGA relief (61% vs 45%; OR 1.78; 95% CI 1.19–2.66; $p = 0.0050$) and adequate relief in weekly analysis (OR 1.56; 95% CI 1.20–2.03; $p = 0.0008$). A ≥30% reduction in abdominal pain based on IBS-SSS was also observed more frequently (OR 1.66; 95% CI 1.12–2.46; $p = 0.012$), while no significant differences were found for PHQ-12, HADS, or WSAS.

Morgan et al. (2005) conducted a randomized, double-blind, placebo-controlled crossover study in 19 women with painful IBS (Rome II) treated with amitriptyline 25–50 mg for 4 weeks. The study had a mechanistic design and evaluated brain activation using fMRI during rectal distension. Treatment was associated with reduced pain-related activation in selected brain regions under stress conditions, without significant differences in subjective IBS pain ratings or distension-induced pain.

Talley et al. (2008) conducted a 12-week randomized, double-blind, placebo-controlled pilot trial in which 18 IBS patients received imipramine 25–50 mg/day. The primary endpoint, adequate relief in the final treatment week, did not differ from placebo, nor did adequate relief over ≥50% of treatment weeks or changes in abdominal pain severity. Differences were observed in selected Bowel Symptom Severity Rating Scale (BSSRS) components, including distress and disability/interference, while HADS-depression and SF-36 Mental Component Score showed non-significant differences.

Thoua et al. (2009) evaluated amitriptyline in an open-label physiological study in 19 IBS patients treated for approximately 3 months with doses of 25–50 mg/day. IBS symptom severity scores decreased over time, and stress-induced visceral hypersensitivity assessed using rectal electrosensitivity was attenuated. No significant changes were observed in HADS scores, hemodynamic parameters, or rectal mucosal blood flow.

Abdul-Baki et al. (2009) conducted a randomized, double-blind, placebo-controlled trial of imipramine in 107 IBS patients with inadequate response to antispasmodics. Imipramine was administered at 25–50 mg/day for 12 weeks. In the per-protocol analysis, global symptom relief was reported more frequently in the imipramine group compared with placebo (80.6% vs 48.0%; $p = 0.01$), whereas in the intention-to-treat analysis the difference did not reach statistical significance (42.4% vs 25.0%; $p = 0.06$). Quality of life assessed using SF-36 showed greater improvement in the imipramine group ($p = 0.02$).

2. Selective serotonin reuptake inhibitors (SSRIs)

Nine studies evaluated SSRIs in IBS, including randomized placebo-controlled trials, crossover studies, and smaller mechanistic or exploratory analyses (Han et al., 2009; Kuiken et al., 2003; Ladabaum et al., 2010; Marks et al., 2008; Masand et al., 2009; Rao et al., 2021; Tack et al., 2006; Talley et al., 2008; Vahedi et al., 2005).

Tack et al. (2006) conducted a randomized, double-blind, placebo-controlled crossover study in 23 non-depressed IBS patients (Rome II) treated with citalopram 20–40 mg/day for 6 weeks. IBS symptoms were assessed using visual analogue scales (VAS). VAS scores for abdominal pain, bloating, and overall symptom severity were lower during citalopram treatment compared with placebo. A ≥50% reduction in days with abdominal pain was more frequent with citalopram ($p = 0.01$), while no significant changes were observed in stool frequency or psychological measures.

Ladabaum et al. (2010) performed a randomized, double-blind, placebo-controlled trial in 54 non-depressed IBS patients treated with citalopram 20–40 mg/day for 8 weeks. The primary endpoint was adequate relief of IBS symptoms, which did not differ between citalopram and placebo (44% vs 56%; $p = 0.59$). Secondary outcomes, including abdominal pain measures, bowel habits, and quality of life, showed no significant differences, and repeated-measures analysis did not demonstrate a treatment effect over time.

Talley et al. (2008) conducted a 12-week randomized, double-blind, placebo-controlled trial comparing citalopram (40 mg), imipramine, and placebo in 51 IBS patients. The primary endpoint was adequate relief in the final treatment week; no significant difference was observed between citalopram and placebo. Secondary outcomes, including abdominal pain and symptom severity measures, as well as quality of life assessed using SF-36, did not differ significantly between groups.

In a randomized, double-blind, placebo-controlled study, Kuiken et al. (2003) evaluated fluoxetine in IBS patients. Outcomes included rectal sensitivity assessed using barostat testing and overall IBS symptom severity. No significant differences were observed between fluoxetine and placebo for rectal sensitivity or symptom measures, including abdominal pain.

Vahedi et al. (2005) conducted a randomized, double-blind, placebo-controlled trial in 44 patients with constipation-predominant IBS treated with fluoxetine 20 mg/day for 12 weeks. IBS symptoms were assessed using symptom severity measures. Significant reductions were observed in abdominal discomfort and bloating, along with improvements in stool consistency and bowel movement frequency compared with placebo ($p < 0.001$).

Rao et al. (2021) performed a randomized controlled trial with an active comparator (sensory adaptation training) in 49 patients with IBS-C and rectal hypersensitivity treated with escitalopram 10 mg/day. Abdominal pain was assessed using daily pain scores, and rectal sensitivity using barostat-based sensory thresholds. No significant changes were observed in pain scores, rectal sensitivity, or bowel-related outcomes, and no between-group differences were detected. Global bowel satisfaction improved over time, without between-group differences.

Masand et al. (2009) conducted a randomized, double-blind, placebo-controlled trial of paroxetine controlled release (12.5–50 mg/day) in 72 IBS patients over 12 weeks. The primary endpoint was defined as ≥25% reduction in Composite Pain Score (CPS), with no significant difference between paroxetine and placebo. Secondary outcomes included Clinical Global Impressions–Improvement (CGI-I), where a higher proportion of patients met response criteria in the paroxetine group.

Post hoc and exploratory analyses of the same trial did not demonstrate consistent associations between treatment response, measured using Composite Pain Score and CGI-based outcomes, and SSRI therapy or baseline psychosocial characteristics (Han et al., 2009; Marks et al., 2008).

3. Serotonin–norepinephrine reuptake inhibitors (SNRIs)

Six studies evaluated SNRIs in IBS, including open-label studies and randomized, double-blind, placebo-controlled trials, most of which assessed SNRIs as add-on therapy (Brennan et al., 2009; Kaplan et al., 2014; Lewis-Fernández et al., 2016; Purshottam et al., 2025; Salehian et al., 2021; Sharbafchi et al., 2020).

Kaplan et al. (2014) conducted a 12-week open-label study in 13 patients with IBS and comorbid generalized anxiety disorder (intention-to-treat analysis). IBS symptom severity assessed using the IBS Severity Scoring System (IBS-SSS) decreased over time. Global clinical status assessed using Clinical Global Impressions (CGI-I and CGI-S) also improved, and quality of life measured using IBS-QOL increased during the treatment period.

Brennan et al. (2009) performed a 12-week open-label study in 15 IBS patients without comorbid depression treated with duloxetine 30–60 mg/day. The primary endpoint, abdominal pain assessed using diary-based Brief Pain Inventory measures, decreased over time in both longitudinal and endpoint analyses. Global severity (CGI-S) and quality of life assessed using IBS-QOL also improved, while stool consistency did not change significantly.

Lewis-Fernández et al. (2016) conducted a 12-week open-label study in 17 patients with IBS and comorbid major depressive disorder (intention-to-treat analysis). IBS symptoms assessed using the Gastrointestinal Symptom Rating Scale (GSRS) showed reductions over time, including the abdominal pain component. Global severity assessed using CGI-S also decreased, while abdominal pain assessed using visual analogue scales (VAS) did not show significant change.

Salehian et al. (2021) conducted a randomized, double-blind, placebo-controlled trial in 60 patients with diarrhea-predominant IBS. All patients received mebeverine, and duloxetine (30 mg/day) was administered as add-on treatment for 12 weeks. IBS symptom severity assessed using the IBS Severity Index showed greater reduction in the duloxetine group compared with placebo (mean difference −15.81; 95% CI −22.3 to −9.4; $p < 0.001$), and quality of life assessed using IBS-QOL also showed improvement (mean difference −14.6; 95% CI −16.5 to −8.4; $p < 0.001$).

Purshottam et al. (2025) conducted a randomized, double-blind, placebo-controlled trial in 85 patients with IBS (77 completers). Duloxetine (30–60 mg/day) was administered as add-on treatment for 8 weeks. IBS symptom severity assessed using IBS-SSS showed lower scores in the duloxetine group at weeks 4 and 8 ($p = 0.007$ and $p < 0.001$, respectively). Quality of life assessed using IBS-QOL showed higher scores in the duloxetine group from week 2 onward, including week 8 ($p = 0.001$).

Sharbafchi et al. (2020) conducted a randomized, double-blind, placebo-controlled trial in 33 patients with moderate-to-severe IBS treated with venlafaxine (37.5–150 mg/day) for 12 weeks. IBS symptoms assessed using IBS-SSS and the Gastrointestinal Symptom Questionnaire showed reductions during treatment, accompanied by improvement in IBS-QOL. Between-group differences were observed at the end of treatment, whereas these differences were not consistently maintained after treatment discontinuation.

4. Other antidepressants

Two randomized, double-blind, placebo-controlled trials evaluated other antidepressants in patients with IBS, including mirtazapine and vortioxetine (Khalilian et al., 2021; Seddighnia et al., 2020).

Khalilian et al. (2021) conducted an 8-week randomized trial in 67 patients with diarrhea-predominant IBS (ITT analysis). IBS symptom severity assessed using IBS-SSS showed greater reduction in the mirtazapine group compared with placebo (mean change −89.76 vs −34.73; $p = 0.002$). A ≥50-point reduction in IBS-SSS was observed in 61.8% vs 30.3% of patients ($p = 0.01$). Abdominal pain severity and frequency also decreased, while abdominal distention did not differ between groups. Quality of life assessed using IBS-QOL improved ($p = 0.04$). Diary-based measures showed reductions in bowel-related symptoms and abdominal pain, while bloating did not change significantly.

Seddighnia et al. (2020) conducted a 6-week randomized, double-blind, placebo-controlled trial in 80 patients with IBS (72 completers). The primary endpoint, quality of life assessed using IBS-QOL, showed greater improvement in the vortioxetine group ($p < 0.001$), with a significant time × treatment effect ($p < 0.001$). IBS-specific symptom severity measures (e.g., IBS-SSS) were not reported. Anxiety and depression scores assessed using HADS decreased in both groups, with greater reductions in the vortioxetine group.

Discussion

Overall interpretation

Treatment effects differed across antidepressant classes and were strongly influenced by endpoint selection and study design. The most consistent evidence was observed for tricyclic antidepressants (TCAs), particularly for IBS symptom severity, global improvement, and abdominal pain outcomes. Findings for selective serotonin reuptake inhibitors (SSRIs) were less consistent across trials, whereas evidence for serotonin–norepinephrine reuptake inhibitors (SNRIs) and other antidepressants remained limited.

Interpretation by drug class

Tricyclic antidepressants (TCAs)

Evidence for TCAs showed relatively consistent effects across studies, particularly for IBS symptom severity, global improvement, and abdominal pain outcomes. The largest randomized trial demonstrated significant reductions in IBS-SSS and improvements in global symptom relief measures (Ford et al., 2023), findings supported by smaller trials and per-protocol analyses (Abdul-Baki et al., 2009). However, not all endpoints were consistently affected, and some studies reported no significant differences in primary outcomes such as adequate relief or pain severity (Talley et al., 2008). Mechanistic and open-label studies suggested modulation of visceral hypersensitivity and central pain processing without parallel changes in subjective symptom ratings (Morgan et al., 2005; Thoua et al., 2009). These observations are consistent with meta-analytic findings demonstrating overall efficacy of antidepressants in IBS, with more consistent effects observed for TCAs compared with SSRIs (Ford et al., 2019).

Selective serotonin reuptake inhibitors (SSRIs)

Findings for SSRIs were inconsistent across randomized trials and appeared dependent on the selected outcome measures. Some studies reported improvements in symptom severity assessed using visual analogue scales and reductions in abdominal pain frequency (Tack et al., 2006), whereas others found no effect on primary endpoints such as adequate relief or composite symptom scores (Ladabaum et al., 2010; Masand et al., 2009). Several trials also reported no significant differences in abdominal pain, bowel habits, or quality of life compared with placebo (Kuiken et al., 2003; Rao et al., 2021; Talley et al., 2008). These discrepancies extended to secondary and exploratory outcomes, including CGI-based measures and post hoc analyses, which did not consistently confirm treatment effects (Han et al., 2009; Marks et al., 2008; Masand et al., 2009). Overall, treatment effects differed across studies and depended substantially on endpoint selection. These findings are consistent with meta-analytic data indicating less consistent effects for SSRIs compared with TCAs (Ford et al., 2019).

Serotonin–norepinephrine reuptake inhibitors (SNRIs)

Evidence for SNRIs remains limited. Open-label studies reported improvements in IBS symptom severity, abdominal pain, and quality of life over time (Brennan et al., 2009; Kaplan et al., 2014; Lewis-Fernández et al., 2016), although these findings were not controlled for placebo effects. Randomized trials provided controlled evidence but predominantly evaluated SNRIs as add-on therapy in combination with standard IBS treatments (Purshottam et al., 2025; Salehian et al., 2021). These studies demonstrated reductions in IBS-SSS and improvements in quality of life compared with placebo (Purshottam et al., 2025; Salehian et al., 2021), while another randomized trial of venlafaxine reported symptom improvement during treatment with partial loss of effect after discontinuation (Sharbafchi et al., 2020). Interpretation is limited by small sample sizes, adjunctive treatment designs, and differences across study protocols.

Other antidepressants

Evidence for other antidepressants is restricted to two randomized trials with differing outcome profiles. Mirtazapine demonstrated reductions in IBS symptom severity, including abdominal pain, and improvements in quality of life (Khalilian et al., 2021). In contrast, vortioxetine improved quality of life without reporting IBS-specific symptom severity outcomes (Seddighnia et al., 2020). These findings indicate endpoint-specific effects, although available data remain limited.

Role of outcome measures

Differences in outcome measures likely contributed substantially to variation in reported treatment effects across studies. Measures including IBS-SSS, visual analogue scales, adequate relief, CGI-based endpoints, and quality-of-life instruments capture distinct dimensions of IBS, ranging from symptom intensity to global patient perception. Consequently, divergent findings may occur within and across trials. For example, improvements observed in VAS-based symptom scores were not consistently reflected in adequate relief or composite endpoints in SSRI trials (Ladabaum et al., 2010; Masand et al., 2009; Tack et al., 2006). In addition, emerging evidence suggests that real-time symptom assessment methods may detect treatment effects not captured by retrospective measures, suggesting that assessment methodology may influence the detection of treatment effects (Vork et al., 2019).

Mechanistic considerations

The observed effects of antidepressants in IBS are consistent with modulation of the gut–brain axis, involving both central and peripheral pathways. Serotonergic signaling influences gastrointestinal motility, secretion, and visceral perception and may also affect neuroendocrine and central pain-processing pathways (Kilkens et al., 2005; Mayer et al., 2014). Experimental studies indicate that serotonergic modulation can

influence neuroendocrine responses and central processing without directly altering visceral perception, suggesting dissociation between physiological and symptomatic effects (Kilkens et al., 2005). Noradrenergic mechanisms, particularly relevant for SNRIs, may contribute to modulation of gastrointestinal sensorimotor function, including changes in colonic compliance and tone (Chial et al., 2003). These mechanisms provide a biological framework for interpreting variability in clinical outcomes without constituting direct evidence of therapeutic efficacy. Recent meta-analytic evaluations of neuromodulators in disorders of gut–brain interaction are consistent with the involvement of central–peripheral signaling pathways (Black et al., 2020).

Conclusions

Antidepressants may have a role in the management of irritable bowel syndrome, although treatment effects differ across pharmacological classes and clinical endpoints. The most consistent evidence was observed for tricyclic antidepressants, particularly for IBS symptom severity, global improvement, and abdominal pain. Findings for selective serotonin reuptake inhibitors were less consistent across studies, whereas evidence for serotonin–norepinephrine reuptake inhibitors and other antidepressants remains limited. Interpretation of the available evidence is further influenced by differences in study design and outcome assessment. Overall, current data do not support definitive conclusions regarding comparative efficacy between antidepressant classes. Further randomized controlled trials using standardized outcome measures are required to better define the role of antidepressants in IBS.

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