



Irritable Bowel Syndrome and Psychiatric Comorbidities: A Narrative Review

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Abstract

Irritable bowel syndrome (IBS) is the most commonly diagnosed illness by gastroenterologists. These symptoms occur widely in the general population at all ages and in both sexes. The condition is a considerable health-care burden, accounting for approximately half of all referrals to gastrointestinal clinics. The prevalence of IBS varies according to geographic region, demographic, and diagnostic criteria employed. IBS pathogenesis is complicated and poorly understood. Gut microbiota, small intestinal bacterial overgrowth (SIBO), visceral hypersensitivity, disruption of the gut-brain axis, psychosocial distress, and altered GI motility all are proposed as potential risk factors. Inflammatory bowel syndrome (IBS) is associated with considerable psychosocial comorbidities, which have an impact on patient quality of life, disease progression, and health-care expenditures. The present article reviews the latest evidence on the aetiology IBS, with a focus on psychiatric comorbidities and available management available.

INTRODUCTION

Irritable Bowel Syndrome (IBS) is a chronic gastrointestinal (GI) disorder that is characterized by repeated and unexplained symptoms such as diffuse or localized abdominal pain, constipation, diarrhea, urgency, and altered bowel habit in the absence of demonstrable organic disease. These symptoms occur widely in the general population of all ages and sexes.¹

In the absence of well-validated biomarkers, diagnosis is based on symptom criteria, and the current standard is the Rome IV criteria, which were published in May 2016. When compared to previous versions, the impact of cross-cultural differences, the intestinal microenvironment, and the role of diet were given more weight in this set of criteria (Table 1).

Abnormal bowel movements are classified using the Bristol stool form scale described below.

The Bristol stool form scale (BSFS) was developed in the 1990s in the Bristol Royal Infirmary in England. The seven types of stool described by the authors are mentioned below:

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Table 1: Rome IV Criteria* For Diagnosis Irritable Bowel Syndrome*

Rome IV Criteria* For Diagnosis of Irritable Bowel Syndrome
<p><i>Recurrent abdominal pain on average at least 1 day/week in the last 3 months, associated with two or more of the following criteria:</i></p> <p>Related to defecation Associated with a change in the frequency of stool Associated with a change in the form (appearance) of stool</p> <p>* Criteria fulfilled for the last 3 months with symptom onset at least 6 months prior to diagnosis</p>
<ul style="list-style-type: none"> ■ <i>Type 1: Separate hard lumps, like nuts (hard to pass)</i> ■ <i>Type 2: Sausage-shaped but lumpy</i> ■ <i>Type 3: Like a sausage but with cracks on its surface</i> ■ <i>Type 4: Like a sausage or snake, smooth and soft</i> ■ <i>Type 5: Soft blobs with clear cut edges (passed easily)</i> ■ <i>Type 6: Fluffy pieces with ragged edges, a mushy stool</i>

The disease is a cause for significant healthcare burden and comprises about half of the referrals to gastroenterology clinics. They remain symptomatic entities with persistent or recurrent symptoms that are not explained by structural or metabolic abnormalities which are known. Finally, many patients with IBS, particularly in referral groups, suffer from psychosocial disturbances which are often overlooked.

Epidemiology

The prevalence of IBS varies by geographic region, population, and diagnostic criteria used. According to cross-sectional studies from Europe and North America, IBS affects 10–20% of the population. The global prevalence of IBS was reported to be 11.2% using Manning, Rome I, Rome II, or Rome III criteria.² Early Asian studies reported a prevalence of IBS of less than 5%. In more recent studies from the region, prevalence rates ranged from 6.8% to 33.3%.³ IBS is more common in younger age groups across Asia, but, unlike in Western studies, IBS affects both men and women equally.^{3,4}

Early research from India suggested that men may have a two to fourfold higher frequency of IBS than women, with a two to fourfold predominance

compared to women. This male predominance can be attributed to increased access to health care because these studies were based on IBS patients attending specialist clinics.^{4,5} On the other hand, in one study of patients in a psychiatry clinic, 75% of 55% IBS patients were female.⁶

More than half of patients in these early Indian studies complained of upper abdominal pain, whereas in Western research, the majority of patients complained of lower abdominal pain, with only around a quarter to a third complaining of upper abdominal discomfort.^{7,8}

The Indian society of gastroenterology (ISG) has conducted a study that included about 3000 IBS patients and 4500 community subjects from 18 different centers. Their findings mainly corroborate those of early Indian research. The estimated prevalence was 4.2%, with male (4.3%) and female (4.0%) participants having similar rates.⁹ In addition, 49% of IBS patients experienced epigastric pain, whereas 70% complained of abdominal fullness rather than pain, according to the ISG study.⁹ Similar findings have been found in other parts of the Indian subcontinent.^{10,11}

In multiracial societies such as Singapore and Malaysia, the frequency of IBS was comparable across ethnic groups (Chinese, Indians, and Malaysia). The highest prevalence was reported among those with higher levels of education and wealth.⁴

IBS Risk Factors

IBS pathogenesis is complicated and poorly understood. Gut microbiota, small intestinal bacterial overgrowth (SIBO), visceral hypersensitivity, intestinal mucosal immune activation, dietary intolerance, increased intestinal permeability, disruption of the gut-brain axis, psychosocial distress, and altered GI motility all are proposed as potential risk factors that can affect the bi-directional brain–gut axis.^{3,4} The only case in which a clear causal component has been discovered is post-infectious IBS (PI-IBS). Diagnostic Criteria For IBS subtypes (Table 2)

Genetics

Studies have shown that subjects with IBS have higher number of relatives having IBS hence it seems to run in families. This suggests that IBS have

Table 2: Diagnostic Criteria For IBS subtypes***Diagnostic Criteria For IBS subtypes**

*Predominant bowel habits are based on stool form on days with at least one abnormal bowel movement.**

IBS with predominant constipation (IBS-C): > ¼ (25%) of bowels movements with Bristol stools types 1 or 2 and < ¼ (25%) of bowel movements with Bristol stool types 6 or 7.

Alternative for epidemiology or clinical practice: Patient reports that abnormal bowel movements are usually constipation (like Type 1 or 2 in the picture of BSF)

IBS with predominant diarrhea (IBS-D): > ¼ (25%) of bowels movements with Bristol stools types 6 or 7 and < ¼ (25%) of bowel movements with Bristol stool types 1 or 2.

Alternative for epidemiology or clinical practice: Patient reports that abnormal bowel movements are usually diarrhea (like Type 6 or 7 in the picture of BSF,)

IBS with mixed bowel habits (IBS-M): > ¼ (25%) of bowels movements with Bristol stools types 1 or 2 and > ¼ (25%) of bowel movements with Bristol stool types 6 or 7.

Alternative for epidemiology or clinical practice: Patient reports that abnormal bowel movements are usually both constipation and diarrhea (more than ¼ of all the abnormal bowel movements were constipation and more than ¼ were diarrhea, using picture of BSF,)

IBS Unclassified (IBS-U): Patients who meet diagnostic criteria for IBS but whose bowel habits cannot be accurately categorized into 1 of the 3 groups above should be categorized as having IBS-U.

Alternative for epidemiology or clinical practice: The patient reports that abnormal stools (diarrhea and constipation) are rare.

For clinical trials, subtyping based on at least 2 weeks of daily diary data is recommended, using the “25%-rule”.

*IBS subtypes related to bowel habit abnormalities (IBS-C, IBS-D and IBS-M) can only be confidently established when the patient is evaluated off medications used to treat bowel habit abnormalities.

Source: *Adapted from <https://theromefoundation.org/rome-iv/rome-iv-criteria/>

a genetic etiopathological component.¹² Several studies have reported that IBS is more common in monozygotic twins compared to dizygotic twins, however, some contrary findings have also been reported.¹³ Genetic contribution in IBS is likely to be polygenic as most of other non-communicable disorders. This suggests that common polymorphisms in a wide number of genes and their interactions with environmental factors play a role in IBS clinical symptoms.¹⁴

Serotonin in the brain–gut axis plays an important role as a mood-related brain neurotransmitter as well as an enteric neurotransmitter involved in gastrointestinal motility and physiology. Hence, genetic variants in the serotonin reuptake transporter are among the most researched in IBS.¹⁵ Studies have reported that genetic variation in the promotor region of the SLC6A4 gene, which encodes SERT, is linked to IBS.¹⁶

IBS symptoms may be linked to disaccharide intolerance or ion channelopathies in a small percentage of patients as rare pathogenic variants in genes encoding sucrase–isomaltase 92 or SCN5A93,

a voltage-gated sodium channel are implicated in IBS.¹⁷

Studies conducted in Japanese population having IBS have reported higher rates of single nucleotide polymorphisms in the genes encoding the corticotropin-releasing hormone (CRH) receptors 1 and 2.¹⁸

Although preliminary studies have suggested a genetic contribution, an important part of this evidence are not available as of now like relative contribution of genetic mutations in pathophysiology and mechanism.

Dietary Factors- Dietary triggers for IBS symptoms are widely reported by patients, and a high-sugar, high-fat western diet has been associated to IBS in a large (n=44,350) French cohort.¹⁹ A single placebo-controlled trial involving 106 individuals found that dietary glutamine supplementation could aid with IBS by decreasing intestinal permeability.²⁰ Patients with IBS may have lactose mal-absorption, however the validity of this suggestion is dubious given the poor response of symptoms to a lactose-free diet and the same prevalence of lactose

malabsorption in people without IBS symptoms.²¹ Individual dietary components may play a role in the etiology of IBS, but so may the interaction of diet with the gut microbiome and the type of microorganisms present in the gut.²²

Gut Microbiome- The importance of the gut microbiome, specifically bacteria, in health and GI disease has piqued researchers' interest. The gut-brain-microbiota axis connects the psyche and neurological system to the intestine, its inhabitant, and the intestine's metabolic, neuroendocrine, and immune activities.²³

The gut microbiota and the brain can communicate through a variety of routes. The microbiota-gut-brain axis interacts with the autonomic nervous system in both antagonistic and synergistic ways. The ANS, in conjunction with neuronal and neuroendocrine inputs, has the ability to cause CNS-modulated gut changes, which also involve the HPA axis.^{23,24} Changes in c-fos expression in vagal afferent cell bodies after oral treatment of *Campylobacter jejuni* give evidence that gut bacteria influence their hosts' emotional and behavioural responses.²⁴

The faecal microbiota of patients with IBS differs considerably from that of healthy people (p 0.0253), suggesting that it may influence colonic transit and contribute to changed bowel habits.²⁵ Inflammatory pathways, intestinal permeability changes, and the gut metabolome, which includes the consequences of bacterial metabolism of intestinal contents, have all been linked to a microbiome-related GI disease complex.²³

A study in IBS patients in the United States found that combining the minimally absorbed antibiotics rifaximin and neomycin improved constipation and straining when compared to neomycin alone.²⁶

Furthermore, it is crucial to identify how much treatment modifies the composition of the gut microbiota, whether these changes are responsible for any clinical benefit, and whether they persist. The situation is exacerbated further by the fact that the gut microbiome of persons of different ethnicities living in the same country and residents of different countries, including neighbors, can differ greatly.²⁵

Post-infection IBS-Infectious gastroenteritis is a common cause of IBS, with patients reporting looser, more frequent faeces rather than constipation.²⁷

PI-IBS has been linked to a variety of bacterial infections, including *Campylobacter jejuni*, *Escherichia coli*, *Salmonella enterica serovar Typhimurium*, *Clostridioides difficile*, and *Vibrio cholerae*.²⁸

A meta-analysis of 45 cohort studies involving 21,421 individuals with infective enteritis who were followed for 3 months to 10 years to detect the development of IBS discovered a pooled prevalence of 10% at 12 months following infection, rising to 15% after 12 months.²⁹

Overall, the prognosis for PI-IBS and non-PI-IBS appears to be comparable, with symptoms lasting more than a year in 75% of patients and few clinical differences between the subtypes.³⁰

Disease Burden

IBS significantly impacts individual patient, their family, and society, making it a driving force for further research in the field.

Quality of Life- IBS has long been known to have a significant impact on QOL, with the anxiety of incontinence in social situations being especially debilitating for people with predominant diarrhoea.³¹ Individuals with IBS-C (Irritable Bowel Syndrome with Predominant Constipation) are more prone to avoid sex, have difficulties concentrating, and feel self-conscious.³² IBS symptoms have a negative impact on QOL since they cause lost earnings, socialisation, and travel capacities. Because QOL is a complex and subjective concept that is determined by an individual's perceptions in the context of their culture and society, the extent to which QOL is impaired, as well as the form of any impairment, whether related to physical, emotional, or social aspects of life, may differ across countries.^{33,34}

Health-care Cost- IBS has significant direct care costs, which are costs that are fully related to resource use for health-care delivery, investigation, and treatment of the condition.³⁵ However, due to differences in the methodology used to compute costs and the year in which the analyses were undertaken, comparing costs between countries is challenging. Indeed, many of the current cost studies must be updated to reflect current tariffs, and no study has attempted to map the worldwide health economic landscape of IBS.

Issues for Society- IBS patients frequently find it difficult to work due to their symptoms. Although

people with IBS are more likely to skip work, it has been suggested that the total amount of time spent is equivalent to people who do not have IBS.²⁵ According to studies conducted in Europe and Canada, between 5 and 50% of IBS patients require leave from their jobs due to symptoms.³⁶ Absenteeism and presenteeism have considerable indirect costs in terms of lost production, comparable to asthma or migraine.³⁷ In a Danish longitudinal population-based study, persons with IBS symptoms had a 61% higher anticipated number of weeks on sickness benefits, which remained statistically significant after controlling for age, gender, time in education, comorbidity, and mental vulnerability. ($P=0.01$)³⁸

Psychiatric comorbidities

IBS is usually connected with stress, anxiety, or depression, which can increase symptoms. Psychiatric comorbidity contributes to the aetiology of IBS as part of an integrated biopsychosocial approach.³⁹ It's important to remember that psychological symptoms may have developed as a result of the intensity and impact of IBS on a patient, or they may have existed prior to the onset of GI symptoms.⁴⁰ Stress, which is defined as a threat to an organism's homeostasis, clearly plays a role in IBS.⁴¹ Real or perceived stress can arise from both internal and external sources. The biopsychosocial approach is based on the link between digestive function and sensation with stress.⁴² Genetic predisposition and early-life stress both influence an individual's sensitivity to developing IBS later in life.⁴³ Following that, physiologic or psychological stressors may trigger or aggravate digestive symptoms⁴⁴

Patients with IBS who seek medical help have higher levels of neurosis and anxiety than non-consultants with IBS or healthy control subjects, according to several studies.⁴⁵ IBS sufferers are also more worried that their symptoms are the result of a significant underlying illness, and they frequently disregard information that contradicts their anxieties. They have higher levels of hypochondria, disease fears, and body obsession than non-IBS patients, and they are also more prone to somatization than healthy control subjects.⁴⁶ IBS with psychiatric comorbidity appears to have

a complex pathophysiology. Psychological factors, hereditary factors, persistent intestinal inflammation, and/or altered signaling in the CNS and gut neuroendocrine system appear to play a part in this process (NES).⁴⁷

Many IBS-related factors (e.g., individual vulnerability, psychosocial stresses) can be controlled by attacking these disorders at the molecular level (interaction between genes and/or signalling pathway regulation in response to environment).⁴⁸ Many aspects implicated with IBS (e.g., individual vulnerability, psychosocial stresses) can be controlled by addressing these disorders at the molecular level (interaction between genes and/or signalling pathway regulation).^{47,48}

Panic disorder and IBS

The literature has shown a high level of comorbidity between IBS and PD. In patients with PD, the prevalence of IBS symptoms varies from 25 to 44 %, with several symptoms common to both illnesses (nausea, diarrhea, abdominal discomfort).^{49,50}

Recent studies have attempted to elucidate the nature of the association between Panic Disorder and IBS. One explanatory paradigm is the functional relationship between the central nervous system (CNS) and the enteric nervous system (ENS). According to a recent study, dysregulation of the hypothalamic-pituitary-adrenal axis (disruption of the normal inhibitory feed-back) could be a common mechanism underlying stress vulnerability.⁵¹ Patients with IBS and anxiety problems have excessively high basal cortisol levels and a weakened immune system (increased cytokine levels).⁵²

Generalised Anxiety Disorder and IBS

IBS symptoms appear to be perpetuated by GI-specific anxiety, which disrupts autonomic and pain facilitation, as well as cognitive systems. The main cause of impaired functioning is anticipatory anxiety and avoidance behaviour.⁴⁷

The research examined at the prevalence, comorbidity, and risk factors for IBS in the general population and discovered a clear relationship between IBS and GAD, with people with comorbid IBS-GAD having increased functional impairment and depressive symptoms.⁵³

Major Depressive Disorder and IBS

Depression is one of the most known psychiatric diseases found in IBS patients. Several studies have revealed an increased prevalence of IBS in patients suffering from serious depression (onset or recurrent episode).⁵⁴

Females with IBS have abnormally increased tryptophan breakdown via the kynurenine pathway due to proinflammatory cytokine activation. Rapid tryptophan breakdown depletes tryptophan and serotonin levels while also producing harmful metabolites. This process could provide a physiological explanation for the significant comorbidity of IBS with depression and anxiety disorders.⁵⁵

Bipolar Disorders and IBS

Only a few research have explored into the link between bipolar disorder and IBS.⁵⁶ A community study finding revealed no link between bipolar disorder and IBS.⁵⁷ Another case research showed no link between mood and the severity of IBS symptoms.⁵⁸

Schizophrenia and IBS

Schizophrenia is a long-term disorder that increases the likelihood of having concomitant somatic ailments. In schizophrenia patients, somatic comor-

bidities are a significant problem. According to Gupta and colleagues, 17% of schizophrenia patients suffer with IBS.⁵⁹ When comorbid diseases exist in persons with schizophrenia, accessing sufficient health treatment may be difficult. It's important to note that, because these results are based on individual reporting of symptoms, the real prevalence of IBS symptoms may be higher in these conditions.

Diagnosing IBS

A complete medical history should be gathered to confirm the presumed diagnosis of IBS. First, any warning indications must be ruled out. A family history of inflammatory bowel illness or colorectal cancer; recent changes in bowel habits, presence of a palpable abdominal mass or lymphadenopathy, overt GI bleeding, nocturnal passage of faeces, rectal bleeding or melena, or accidental weight loss are among the warning indications.⁶⁰ If these warning signals aren't present, a detailed medical history should be taken to establish the frequency of symptoms and whether the patient fulfils the Rome IV diagnostic criteria.⁶¹

IBS symptoms include loose/frequent faeces, constipation, bloating, stomach cramping, discomfort, or pain caused by food intake/specific food sensitivities, or symptoms that alter over time (change

Table 3: Treatment modalities

	Lifestyle and dietary interventions: Patients with IBS should be encouraged to increase their physical activity because physically active people have faster colon transit times than sedentary people. This can result in a general improvement in IBS symptoms.
General Management	Patients typically associate their IBS symptoms with eating. True food allergies are uncommon in IBS sufferers. Food sensitivities and intolerances, on the other hand, are a common problem. Gluten-free, low-fermentable oligosaccharides, disaccharides, monosaccharides, and polyols (FODMAP) diets appear to be beneficial to IBS patients.
Medical treatment of IBS-D	Antidiarrheals (e.g. Loperamide) Serotonin Agents: 5-HT ₃ Receptor Antagonists (e.g. Alosetron, Ondansetron) Antispasmodics (e.g. cimetropium, pinaverium, dicyclomine, peppermint oil)
Medical treatment of IBS-C	Fiber Supplements (e.g. psyllium and ispaghula husk) Laxative Agents (e.g. polyethylene glycol) Prosecretory Agents (e.g. Lubiprostone, Linaclotide)
Centrally acting interventions	Antidepressants (TCAs and SSRIs)
Psychological therapies	Cognitive behavioural therapy, Hypnotherapy, Multicomponent psychotherapy, and Dynamic psychotherapy

Source: Adapted from Videlock EJ, Chang L. Irritable bowel syndrome: current approach to symptoms, evaluation, and treatment. *Gastroenterology Clinics of North America*. 2007 Sep 1;36(3):665-85.

in pain location, change in stool pattern).^{60,61} The Bristol Stool Form Scale, a validated instrument that permits reporting of stool appearance on a scale of 1(hard and lumpy stool) to 7(entirely liquid, can be used to examine stool consistency.⁶² Along with symptom-based criteria, a check should be done for the presence of alarming symptoms that identify those who require a more complete assessment to rule out organic disease.

Complete blood cell count, age-appropriate colorectal cancer screening, C-reactive protein or faecal calprotectin, IgA TtG +/- quantitative IgA, random biopsies obtained during colonoscopy, tauroselcholic (selenium 75) acid, faecal bile acids, or serum C4 where available and abdominal radiography to evaluate for stool accumulation are all possible investigations.⁶³

Because the yield of intensive diagnostic testing is limited, research suggests that patients who meet symptom-based criteria and have no warning symptoms can be diagnosed with confidence with IBS.

Antidepressants in IBS

Despite the fact that studies examining their efficacy in IBS or visceral pain syndromes typically have methodological limitations, TCAs are useful in treating visceral pain. The analysis found 11 randomised, placebo-controlled trials of antidepressant treatment for IBS in the literature using quality criteria. Among the agents investigated were amitriptyline (three trials), desipramine (two trials), doxepin (one trial), clomipramine (one trial), trimipramine (two trials), and mianserin (one trial). The odds ratio for improvement with antidepressants was 4.2 (95% confidence interval: 2.3 to 7.9), with an average number needed to treat of 3.2 (95% confidence interval: 2.1 to 6.5).⁶⁴

Tabas and colleagues investigated at a group of IBS patients who didn't respond to just a high-fiber diet (25 gm of fibre daily). Only 26% of patients on the high-fiber diet believed their illness had improved sufficiently. The remaining subjects were either given paroxetine or a placebo: 63 percent of paroxetine-treated patients reported a considerable improvement in their well-being, compared to 26% of placebo-treated individuals.⁶⁵

In a RCT conducted by Mehrpooya *et al.* Mirtazapine was found to be more effective than placebo in reducing the severity of IBS symptoms. Furthermore, at the end of the treatment period, mirtazapine-treated participants improved considerably more than placebo-treated subjects in all diary-derived symptoms except bloating. Mirtazapine considerably improved the patients' quality of life and anxiety symptoms while being well tolerated.⁶⁶ Treatment should begin with low doses, and both clinicians and patients should be aware of potential side effects and willing to alter dosage or try a different drug if necessary.

Psychological Treatment in IBS

In addition to lifestyle adjustments, nutritional recommendations, and medication treatment, psychotherapy is an important component in the treatment of IBS. Psychotherapy is not necessary for every patient, but it should be addressed early on in those who have a lack of social support, have had traumatic events in the past, or have dysfunctional relationships.

A 2019 meta-analysis evaluated nine randomised controlled trials (RCTs) with a total of 610 patients to control groups. The symptoms of 145 of 349 (41.5%) patients who got CBT did not improve, whereas the symptoms of 166 of 261 (63.6%) patients in the control groups did, suggesting that CBT had a beneficial effect.⁶⁷

A more recent RCT utilized a CBT-based online curriculum. The study involved 86 patients who were randomly allocated to one of two groups: control (an online discussion forum) or therapy. The main outcomes were the severity of IBS symptoms, quality of life, anxiety, depression, and overall functioning. Patients in the therapy group reported 42% fewer IBS symptoms, compared to a 12% increase in the control group.⁶⁸

A study compared the effects of hypnotherapy and supportive psychotherapy in patients with difficult-to-treat IBS. Pain, flatulence, bowel behaviour alterations, and general well-being all improved significantly in the hypnotherapy group. A three-month follow-up revealed that the improvement had persisted.⁶⁹ Another study looked at the gastrocolonic response of IBS patients receiving hypnotherapy

and discovered that the sensory and motor components of the reaction were reduced.⁷⁰ Hypnotherapy improves the processing and perception of visceral cues in IBS patients. According to an fMRI study, hypnotherapy can help to normalise altered perception.⁷¹

Because stress can generate physiological arousal, which can lead to an increase in somatic complaints and a disruption in the gut-brain connection, relaxation techniques such as progressive muscle relaxation and autogenic training attempt to minimise perceived stress.⁷²

Ford *et al.* discovered that when data from two or more RCTs were merged, cognitive behavioural treatment, relaxation therapy, multi-component psychological therapy, hypnotherapy, and dynamic psychotherapy were all helpful.⁷³

It's uncertain whether psychotherapy should be utilised as a main or secondary treatment for IBS. It is also unclear which psychotherapies are best for which patient types. Because there are so many IBS patients and so few interested and available practitioners, those who aren't responding to traditional therapies should be referred for psychotherapy. Those with persistent pain, severely reduced health-related quality of life, a history of abuse, poor coping, or dissatisfaction with medical treatment should be offered psychiatric treatment. Antidepressants should be offered to patients who have a depressive or anxiety disorder as well as persistent pain.

CONCLUSION

IBS is the result of a complex interaction of genetic, psychological, medical, and social factors, all of which can influence the disease process. The patient will not have a satisfactory recovery unless the clinician identifies and addresses all of the aspects, which might result in poorer outcomes.

These conditions are linked to a significant reduction in quality of life, higher medical costs, and absenteeism. They are best assessed and treated using a biopsychosocial model that includes both structural and functional evaluations of the digestive tract as well as psychosocial evaluations.

Psychiatric therapies can help patients improve

their overall well-being and quality of life, and they're most effective in people who don't have a lot of psychiatric issues. Antidepressants are beneficial not only in the treatment of comorbid anxiety and depressive disorders, but also in the improvement of outcomes in patients with IBS.

Patient outcomes and general quality of life can be improved by timely collaboration between gastroenterologists and physicians with psychiatrists and/or psychologists. More study is needed to improve the existing knowledge base on IBS, allowing for the development of new, more effective medications that can be provided more effectively and personalized to individual patients.

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