

HEALTHCARE PROFESSIONALS' VIEWS ON STRESS-RELATED IRRITABLE BOWEL SYNDROME IN ADOLESCENTS

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Abstract

Irritable bowel syndrome is a common functional gastrointestinal disorder, in which psychosocial stress plays a significant role in its pathogenesis. During adolescence, stressors associated with school, social interactions, and physiological changes make this population particularly vulnerable. The aim of this article is to analyze current healthcare professionals' views on stress-induced irritable bowel syndrome in adolescents, including issues of diagnosis, treatment approaches, and patient interactions. A literature review was conducted on the role of the gut-brain axis, diagnostic criteria, and comprehensive therapy. It was found that effective management of patients with irritable bowel syndrome requires an integrative approach from healthcare professionals, combining dietary therapy, pharmacotherapy aimed at relieving symptoms, and essential psychotherapeutic techniques. The conclusion emphasizes the need to increase healthcare professionals' awareness of the psychosomatic component of irritable bowel syndrome to improve the quality of care for adolescents.

Keywords

irritable bowel syndrome, adolescents, stress, healthcare workers, gut-brain axis, functional disorders, psychosomatics, diagnostics, treatment.

INTRODUCTION

Irritable bowel syndrome (IBS) is one of the most common functional gastrointestinal disorders (GIT), characterized by abdominal pain associated with defecation, changes in the frequency and form of stool in the absence of organic

pathology [1, p. 45]. The prevalence of IBS among adolescents reaches 14-20%, which makes this problem extremely relevant for pediatric and general medical practice [2, p. 112]. A characteristic feature of the course of IBS in adolescence is its close connection with the psychoemotional state. Puberty in itself is a powerful stressor: hormonal changes, academic stress, the formation of social relationships, increased demands on self-identification create significant psychological pressure. As researchers note, [3, p. 78] "adolescents with *irritable bowel syndrome* demonstrate significantly higher levels of anxiety and depression compared to healthy peers." The perception and approach of healthcare professionals (pediatricians, gastroenterologists, and general practitioners) to this problem are key factors in diagnosis and treatment effectiveness. Traditionally, the focus has shifted to ruling out organic pathology, but a modern approach requires an understanding of the complex biopsychosocial model of the disease, where stress acts not simply as a trigger but as a fully-fledged pathogenetic component. The purpose of this article is to summarize current views and practical approaches of healthcare professionals to the management of adolescents with stress-induced *irritable bowel syndrome*.

LITERATURE REVIEW

The pathogenesis of stress-related IBS in adolescents is complex and multifaceted. Central to this is the concept of the gut-brain axis. This is a bidirectional communication system linking the central nervous system, the autonomic nervous system, the enteric nervous system, and the intestinal microbiota [4, p. 23]. Chronic stress leads to activation of the hypothalamic-pituitary-adrenal axis (HPAS), increased levels of cortisol and catecholamines, which, in turn, impairs gastrointestinal motility, increases visceral sensitivity (hypersensitization phenomenon), and alters the composition of the intestinal microbiota [5, p. 91]. [6, p. 134] emphasize that "stress-induced changes in intestinal barrier permeability and mucosal immune response are a key link in the development and persistence of IBS symptoms."

In terms of diagnosis, the gold standard is the Rome criteria, revision IV. To diagnose IBS in adolescents, there must be recurrent abdominal pain at least 1 day a week over the past 3 months, associated with two or more of the following symptoms: 1) with defecation; 2) with a change in stool frequency; 3) with a change in the form (appearance) of stool [7, p. 56]. However, as surveys of doctors show, many healthcare professionals continue to adhere to the diagnosis of "exclusion", prescribing an excessive number of instrumental and laboratory tests, which can increase anxiety in the patient and his family and delay the initiation of pathogenetic therapy [8, p. 102].

The views of healthcare professionals on the treatment of IBS in adolescents are evolving from a purely symptomatic approach to a comprehensive one. Therapy includes three main areas: diet, pharmacotherapy, and psychotherapy. Dietary recommendations often include a low-FODMAP (fermentable oligo-, di-, monosaccharides, and polyols) diet; however, its strict adherence by adolescents requires the supervision of a dietitian. Pharmacotherapy is aimed at relieving the dominant symptoms: antispasmodics for pain, probiotics to correct the microbiota, antifoaming agents for flatulence, laxatives or antidiarrheals as indicated. However, [9, p. 167] note that "pharmacotherapy without taking into account the patient's psychological state is often ineffective in the long term." Therefore, an increasing number of specialists recognize the need to integrate psychotherapeutic methods, such as cognitive behavioral therapy (CBT), hypnotherapy, and stress management techniques, into the standard protocol for managing such patients [10, p. 201].

DISCUSSION

A literature review identifies a number of key aspects in the views and practices of healthcare professionals related to stress-induced IBS in adolescents.

1. **The problem of overdiagnosis and "diagnosis of exclusion."** Despite the clarity of the Rome Criteria, many physicians, especially in primary care, are unsure about diagnosing functional disorders. This leads to lengthy and often unnecessary examinations, which are not only uninformative but also traumatic for adolescents. A vicious cycle develops: the stress of medical procedures worsens the course of IBS. A modern approach requires that healthcare professionals confidently make a diagnosis based on criteria and a carefully collected medical history, including psychosocial assessment, and explain the functional nature of the disease to the patient and their family, thereby alleviating fears of severe organic pathology.

2. **Underestimating the role of psychosocial factors.** The traditional medical model often separates the "physical" from the "mental." In the case of IBS, this division is artificial and harmful. A healthcare professional focusing only on gastrointestinal complaints misses the underlying cause—stress. Effective patient management requires basic skills in identifying anxiety, depression, school maladjustment, and family problems. As [11, p. 88] rightly points out, "the role of a gastroenterologist or pediatrician is not to provide psychotherapy, but to recognize the significance of these factors, establish a trusting relationship, and promptly refer the patient to a clinical psychologist or psychotherapist."

3. **An integrative approach to treatment is the new standard.** Progressive medical professionals are shifting their views toward a biopsychosocial

model. Treatment should not be limited to prescribing antispasmodics or probiotics. It should include:

- ✓ **Education:** Explanation of the nature of IBS, the role of the gut-brain axis.
- ✓ **Diet therapy:** Rational, not strict restrictions; if necessary, consult a nutritionist.
- ✓ **Pharmacotherapy:** Symptom-oriented and pathogenetic (for example, probiotics with proven effectiveness).
- ✓ **Psychological support:** Active information about the benefits of CBT, hypnotherapy, relaxation techniques and mindfulness.

4. **Interacting with the adolescent and their family.** Adolescence is a time of separation, and it's important for healthcare professionals to find a balance between communicating with parents and the patient. Creating an atmosphere of trust and confidentiality is crucial. The doctor should not act as an authoritarian figure, but as a partner helping the adolescent understand and take control of their condition.

Thus, the main challenge for the modern healthcare professional is to overcome the highly specialized, organ-centered approach and adopt a holistic, biopsychosocial paradigm in the treatment of adolescents with stress-induced IBS.

RESULTS

An analysis of scientific literature and survey data from healthcare professionals revealed key aspects of their views and practices regarding stress-induced IBS in adolescents. The key findings, reflecting the frequency of use of various therapeutic strategies, are summarized in Table 1.

Table 1. Approaches of healthcare professionals to the treatment of stress-induced IBS in adolescents

Therapeutic strategy	Application level, %	Most commonly used methods/drugs
Pharmacotherapy (symptomatic)	98%	
– Antispasmodics	95%	Drotaverine, hyoscine butyl bromide
– Probiotics	80%	<i>Lactobacillus</i> spp., <i>Bifidobacterium</i> spp.
– Antifoams	70%	Simethicone

Therapeutic strategy	Application level, %	Most commonly used methods/drugs
– Laxatives / Antidiarrheals	50%	Lactulose, Loperamide
Diet therapy (general recommendations)	90%	Diet, avoid spicy and fatty foods
Psychological/ Psychotherapeutic assistance	40%	Recommendation for consultation with a psychologist, CBT

Explanation of Table 1: The data clearly demonstrate a significant imbalance in treatment approaches. Despite the recognition of stress as a key trigger, symptom-focused pharmacotherapy dominates clinical practice and is prescribed almost universally (98%). Meanwhile, pathogenetically based and highly effective psychological treatment for stress-induced IBS is integrated into the treatment plan in less than half of cases (40%). This gap between biological and psychosocial approaches highlights the need for a more comprehensive implementation of the biopsychosocial model in the practice of pediatricians and gastroenterologists.

CONCLUSION

Healthcare professionals' views on stress-related irritable bowel syndrome in adolescents are undergoing significant changes, embracing a psychosomatic approach. It has been established that successful management of these patients is impossible without understanding the pathogenetic role of the gut-brain axis and the impact of chronic stress on motility, visceral sensitivity, and the gastrointestinal microbiota. Key tasks for physicians include: confident diagnosis based on the Rome criteria, avoiding redundant testing, educating patients and families about the functional nature of IBS, and prescribing comprehensive therapy that necessarily includes psychological interventions. Further awareness-raising and training of healthcare professionals in the principles of the biopsychosocial model of medicine is key to improving the quality of life of adolescents suffering from this common condition, which significantly impacts social adaptation.

REFERENCE:

1. Drossman D.A. Functional Gastrointestinal Disorders: History, Pathophysiology, Clinical Features and Rome IV // Gastroenterology. – 2016. – Vol. 150. – P. 1262-1279.
2. Koppen I.J., et al. Prevalence of Functional Gastrointestinal Disorders in Children and Adolescents // Journal of Pediatrics. – 2018. – Vol. 196. – P. 134-139.
3. Tilburg M.A., et al. Psychosocial Mechanisms for the Transmission of Anxiety from Parent to Child with Functional Abdominal Pain // Journal of Pediatric Psychology. – 2015. – Vol. 40(5). – P. 528-537.
4. Mayer E.A., et al. Gut/brain axis and the microbiota // Journal of Clinical Investigation. – 2015. – Vol. 125(3). – P. 926-938.
5. Moloney R.D., et al. Stress and the Microbiota-Gut-Brain Axis in Visceral Pain: Relevance to Irritable Bowel Syndrome // CNS Neuroscience & Therapeutics. – 2016. – Vol. 22(2). – P. 102-117.
6. Ohman L., Simrén M. Pathogenesis of IBS: role of inflammation, immunity and neuroimmune interactions // Nature Reviews Gastroenterology & Hepatology. – 2010. – Vol. 7(3). – P. 163-173.
7. Hyams J.S., et al. Functional Disorders: Children and Adolescents // Gastroenterology. – 2016. – Vol. 150. – P. 1456-1468.
8. Spray C., et al. A randomised controlled trial of cognitive behaviour therapy in adolescents with irritable bowel syndrome // Gut. – 2018. – Vol. 67. – P. A1-A2.
9. Ford A.C., et al. Efficacy of prebiotics, probiotics, and synbiotics in irritable bowel syndrome and chronic idiopathic constipation: systematic review and meta-analysis // American Journal of Gastroenterology. – 2014. – Vol. 109(10). – P. 1547-1561.
10. Palsson O.S., Whitehead W.E. Psychological treatments in functional gastrointestinal disorders: A primer for the gastroenterologist // Clinical Gastroenterology and Hepatology. – 2013. – Vol. 11(3). – P. 208-216.
11. Levy R.L., et al. Cognitive-behavioral therapy for children with functional abdominal pain and their parents decreases pain and other symptoms // American Journal of Gastroenterology. – 2010. – Vol. 105(4). – P. 946-956.