TIBBIYOT
TA'LIMI & INNOVATSIYALARI

O'ZBEKISTON RESPUBLIKASI
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TOSHKENT TIBBIYOT AKADEMIYASI

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- 14.00.00 - Tibbiyot fanlari;
- 14.00.01 - Akusherlik va ginekologiya;
- 14.00.02 - Morfologiya;
- 14.00.03 - Endokrinologiya;
- 14.00.04 - Otorinolaringologiya;
- 14.00.05 - Ichki kasalliklar;
- 14.00.06 - Kardiologiya;
- 14.00.07 - Gigiena;
- 14.00.08 - Oftal'mologiya;
- 14.00.09 - Pediatriya;
- 14.00.10 - Yuqumli kasalliklar;
- 14.00.11 - Dermatologiya va venerologiya;
- 14.00.12 - Tibbiy reabilitologiya;
- 14.00.13 - Nevrologiya;
- 14.00.14 - Onkologiya;
- 14.00.15 - Patologik anatomiya;
- 14.00.16 - Normal va patologik fiziologiya;
- 14.00.17 - Farmakologiya va klinik farmakologiya;
- 14.00.18 - Psixiatriya va narkologiya;
- 14.00.19 - Klinik radiologiya;
- 14.00.20 - Tibbiy genetika;
- 14.00.21 - Stomatologiya;
- 14.00.22 - Travmatologiya va ortopediya;
- 14.00.23 - Hamshiralik ishini tashkil etish;
- 14.00.24 - Sud tibbiyoti;
- 14.00.27 - Xirurgiya;
- 14.00.28 - Neyroxirurgiya;
- 14.00.41 - Xalq tabobati;
- 14.00.35 - Bolalar xirurgiyasi;
- 14.00.34 - Yurak-qon tomir xirurgiyasi

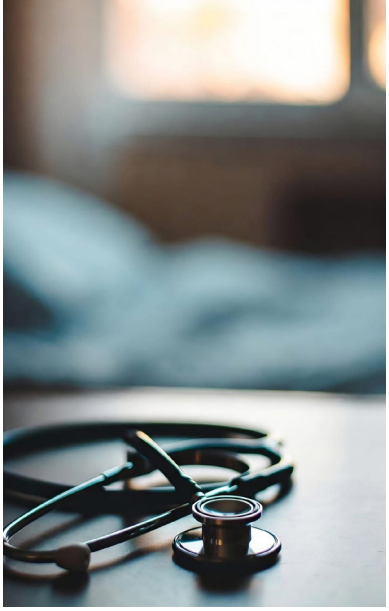
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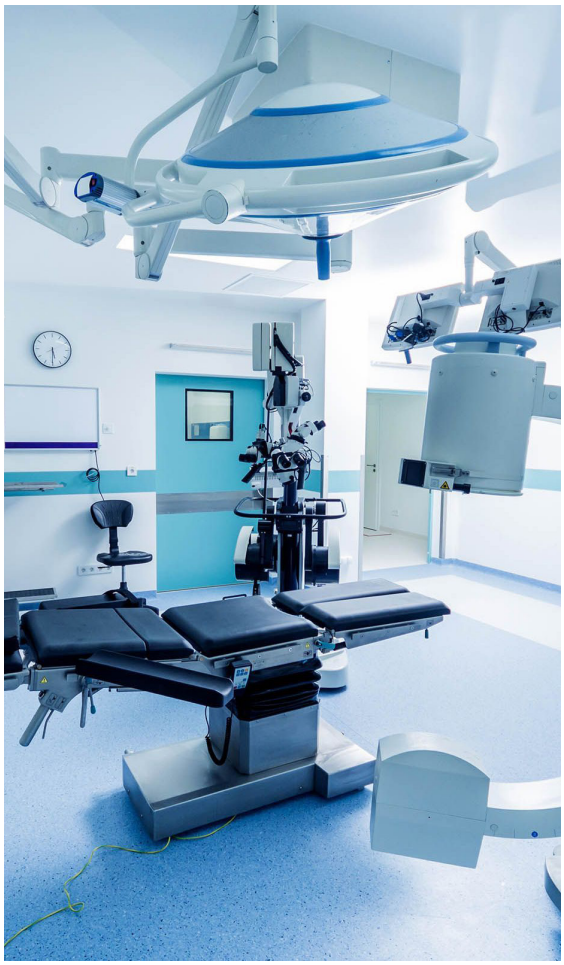
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MUNDARIJA

ОЦЕНКА РЕЗУЛЬТАТОВ КОМПЛЕКСНОГО ЛЕЧЕНИЯ ОСТЕОМИЕЛИТА ВЕРХНЕЙ ЧЕЛЮСТИ У БОЛЬНЫХ САХАРНЫМ ДИАБЕТОМ 2 ТИПА 22
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PSYCHOEMOTIONAL STRESS AND GASTROINTESTINAL SYMPTOMS IN CHILDREN: PATHOPHYSIOLOGICAL LINKS, CLINICAL ASSESSMENT, AND PREVENTIVE APPROACHES

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Abstract: Background. Psychoemotional stress may influence the perception and regulation of gastrointestinal symptoms in children through bidirectional gut–brain interactions. Objective. To synthesize evidence on the relationships between stress, functional gastrointestinal symptoms, sleep, and dietary behavior in school-aged children and adolescents, and to outline a clinically appropriate assessment framework. Materials and Methods. A narrative review and structured conceptual analysis were conducted based on the Rome IV pediatric criteria, and selected peer-reviewed publications. No primary patient data were analyzed. Results. Evidence suggests that stress may exacerbate functional dyspepsia, functional abdominal pain, irritable bowel syndrome, and functional constipation through changes in visceral sensitivity, autonomic and neuroendocrine signaling, behavior, and attention to symptoms. Sleep disturbances, irregular meals, family circumstances, and school-related pressures may act as interacting modifiers rather than independent explanations for all symptoms. Rome IV provides a symptom-based diagnostic framework following appropriate clinical evaluation, while alarm features warrant further investigation. Conclusion. A biopsychosocial and age-sensitive approach to gastrointestinal assessment is justified; however, causality and intervention effectiveness cannot be inferred from this narrative synthesis. Prospective pediatric studies using validated stress assessment instruments and standardized outcomes are needed.

Key words: psychoemotional stress; children; disorders of gut–brain interaction; functional dyspepsia; irritable bowel syndrome; abdominal pain; constipation; Rome IV; sleep.

Annotatsiya: Dolzarbligi. Psixoemotsional stress bolalarda ichak va bosh miya o‘rtasidagi ikki tomonlama o‘zaro ta’sir orqali oshqozon-ichak simptomlarining namoyon bo‘lishi va boshqarilishiga ta’sir ko‘rsatishi mumkin. Maqsad — maktab yoshidagi bolalar va o‘smirlarda stress, funksional gastrointestinal simptomlar, uyqu hamda ovqatlanish xulqi o‘rtasidagi bog‘liqlik haqidagi ilmiy ma’lumotlarni umumlashtirish va klinik baholash yondashuvini taklif etish. Materiallar va usullar. Rome IV pediatrik mezonlari va tanlangan taqrizdan o‘tgan ilmiy nashrlar asosida narrativ adabiyotlar sharhi hamda tizimli konseptual tahlil o‘tkazildi. Bemorlar bo‘yicha birlamchi klinik ma’lumotlar tahlil qilinmadi. Natijalar. Ilmiy ma’lumotlarga ko‘ra, stress visseral sezuvchanlik, vegetativ va neyroendokrin boshqaruv, xulq-atvor hamda simptomlarga qaratilgan e’tiborning o‘zgarishi orqali funksional dispepsiya, funksional abdominal og‘riq, ta’sirlangan ichak sindromi va funksional qabziyat belgilarini kuchaytirishi mumkin. Uyqu buzilishi, tartibsiz ovqatlanish, oilaviy sharoit va maktab bilan bog‘liq yuklamalar o‘zaro ta’sirlashuvchi modifikatsiyalovchi omillar bo‘lishi mumkin, biroq barcha simptomlarning yagona sababi hisoblanmaydi. Rome IV mezonlari tegishli klinik baholashdan so‘ng simptomlarga asoslangan tashxis qo‘yish imkonini beradi, xavotirli belgilar esa qo‘shimcha tekshiruvni talab etadi. Xulosa. Oshqozon-ichak shikoyatlarini baholashda yosh xususiyatlarini hisobga oluvchi biopsixososial yondashuv maqsadga muvofiq. Biroq ushbu narrativ tahlil asosida sabab-oqibat munosabatlarini aniqlash yoki davolash va profilaktik tadbirlarning samaradorligi haqida xulosa chiqarish mumkin emas. Stressni baholashning validatsiyalangan vositalari va standartlashtirilgan natija ko‘rsatkichlaridan foydalangan holda prospektiv pediatrik tadqiqotlar o‘tkazish zarur.

Kalit so‘zlar: psixoemotsional stress; bolalar; ichak va bosh miya o‘zaro ta’siri buzilishlari; funksional dispepsiya; ta’sirlangan ichak sindromi; abdominal og‘riq; qabziyat; Rome IV; uyqu.

Аннотация: Актуальность. Психоэмоциональный стресс может влиять на выраженность и регуляцию желудочно-кишечных симптомов у детей посредством двунаправленного взаимодействия между кишечником и головным мозгом. Цель — обобщить данные о взаимосвязях стресса, функциональных гастроинтестинальных симптомов, сна и пищевого поведения у детей школьного возраста и подростков, а также предложить подход к клинической оценке. Материалы и методы. Проведены нарративный обзор литературы и структурированный концептуальный анализ педиатрических критериев Rome IV и отобранных рецензируемых научных публикаций. Собственные клинические данные пациентов не анализировались. Результаты. Данные литературы свидетельствуют о том, что стресс может усиливать проявления функциональной диспепсии, функциональной абдоминальной боли, синдрома раздражённого кишечника и функционального запора посредством изменений висцеральной чувствительности, вегетативной и нейроэндокринной регуляции, поведения и внимания к симптомам. Нарушения сна, нерегулярное питание, семейные обстоятельства и школьные нагрузки могут выступать взаимосвязанными модифицирующими факторами, но не объясняют все случаи возникновения симптомов. Критерии Rome IV обеспечивают симптом-ориентированную основу клинической диагностики после надлежащего обследования, тогда как наличие тревожных признаков требует дополнительного исследования. Заключение. Обоснован биопсихосоциальный подход к оценке желудочно-кишечных жалоб с учётом возраста пациента. Вместе с тем на основании данного нарративного обзора невозможно установить причинно-следственные связи или оценить эффективность вмешательств. Необходимы проспективные педиатрические исследования с использованием валидированных инструментов оценки стресса и стандартизированных критериев результатов.

Ключевые слова: психоэмоциональный стресс; дети; расстройства взаимодействия кишечника и головного мозга; функциональная диспепсия; синдром раздражённого кишечника; абдоминальная боль; запор; Rome IV; сон.

INTRODUCTION

Gastrointestinal symptoms are common reasons for pediatric consultations and include recurrent abdominal pain, nausea, bloating, changes in stool frequency, early satiety, and postprandial discomfort. Their etiology is heterogeneous: some children have infectious, inflammatory, anatomical, metabolic, or other identifiable disorders, whereas others meet the diagnostic criteria for disorders of gut–brain interaction (DGBI), historically termed functional gastrointestinal disorders. A symptom-based diagnosis of DGBI does not imply that the symptoms are imagined or insignificant. Rather, it acknowledges the complex interplay among visceral sensation, gastrointestinal motility, central processing, autonomic regulation, behavior, and the psychosocial environment [1, 2]. Childhood and adolescence are characterized by changing sleep patterns, educational demands, peer relationships, family influences, and eating habits. Stress arising in these contexts may exacerbate gastrointestinal discomfort and symptom-related functional impairment. The relationship is bidirectional: persistent pain and bowel dysfunction may themselves increase anxiety, disrupt school attendance, and reinforce stress. Accordingly, psychoemotional stress should be considered a possible contributing factor and symptom modifier, rather than a universal or exclusive cause of gastrointestinal disease. The aim of this article is to synthesize the clinical and physiological relevance of stress in pediatric gastrointestinal complaints and to develop a coherent framework for assessment and prevention based on the available literature.

LITERATURE REVIEW

Rome IV established a clinically useful framework for childhood DGBI and emphasized that symptoms should not be attributable to another medical condition after appropriate medical evaluation. This formulation supports a positive clinical diagnosis rather than unlimited exclusionary testing, while still requiring careful attention to medical history, physical examination, and alarm features [1, 2]. The Rome IV pediatric categories include functional dyspepsia, irritable bowel syndrome, functional abdominal pain not otherwise specified, functional constipation, and other disorders with partially overlapping manifestations. This classification is particularly valuable for comparing research populations because it standardizes symptom frequency, duration, and associated features [3]. However, it does not establish whether an individual child's symptoms are caused by stress. The biological framework most commonly used to explain these relationships is the bidirectional gut–brain axis, which integrates autonomic and enteric neural pathways, hypothalamic–pituitary–adrenal signaling, immune processes, microbiota-related pathways, and central processing of visceral signals [4]. Stress can alter attention to bodily sensations, pain thresholds, bowel patterns, and eating behavior. At the same time, gastrointestinal symptoms and concerns about their recurrence may increase psychological distress. This reciprocal relationship helps explain why some patients experience symptom fluctuations around examinations, school attendance, family conflict, or periods of sleep deprivation. Nevertheless, temporal co-occurrence alone does not establish a causal mechanism.

The pediatric literature indicates that abdominal pain-related DGBI may coexist with anxiety and depressive symptoms and that psychological well-being may be associated with symptom severity and functional impairment [5, 6]. These associations should be interpreted with due consideration of study design, methods of data collection, and potential confounding factors. Functional dyspepsia may involve postprandial fullness, early satiation, and epigastric pain or burning, whereas pediatric irritable bowel syndrome is characterized by recurrent abdominal pain associated with defecation or changes in stool characteristics. Functional constipation often involves stool withholding, painful defecation, and behavioral avoidance. These syndromes are clinically distinct, and their assessment should not reduce them to a single category of “stress-induced illness” [2]. Sleep disturbances, irregular meals, insufficient physical activity, and school-related stress may occur together and affect both gastrointestinal symptoms and psychological well-being. Contemporary reviews increasingly consider these factors to be modifiable, interconnected influences rather than isolated determinants [5, 6]. Nevertheless, the relative contribution of each factor varies among individuals, and the available evidence is heterogeneous. Clinical evaluation should therefore consider longitudinal symptom patterns, family and school functioning, dietary and bowel habits, sleep patterns, and psychological symptoms alongside physical examination findings. Appropriate screening for alarm features remains essential before classifying symptoms as functional.

RESEARCH METHODOLOGY

The present article is a narrative literature-based analysis supported by published Rome IV materials and selected contemporary peer-reviewed reviews and studies addressing pediatric disorders of gut–brain interaction (DGBI) and psychoemotional distress. No clinical cohort was recruited, and no individual patient observations, measured stress scores, or statistical results are reported. Accordingly, this article does not present a new clinical investigation or a systematic review conducted in accordance with PRISMA guidelines.

For the synthesis, the evidence was organized into the following domains, without treating them as independent study outcomes: pediatric symptom phenotypes; gut–brain mechanisms; psychological, educational, sleep-related, and dietary correlates; Rome IV diagnostic principles; and safety-oriented clinical assessment. A proposed observational protocol for future research is outlined at the conceptual level. Under this protocol, children could be classified according to their gastrointestinal symptoms and Rome IV diagnostic status, with stress assessed using age- and language-validated questionnaires. Anthropometric characteristics, sleep duration, physical activity, dietary patterns, school- and family-related factors, and gastrointestinal symptoms could be collected prospectively. Any future analysis would require a prespecified primary endpoint, clearly defined eligibility criteria, ethics approval, and a statistical analysis plan capable of adjusting for potential confounding factors. No odds ratios, percentages, between-group comparisons, or p-values were calculated in the absence of primary data.

ANALYSIS AND RESULTS

The thematic synthesis identified a consistent conceptual distinction between the physiological stress response and clinically diagnosed gastrointestinal disorders. Stress-related autonomic or neuroendocrine activation may modulate gastric emptying, intestinal motility, visceral sensitivity, and the perception of discomfort. However, these pathways do not establish that stress caused a particular gastrointestinal disorder. In the literature analyzed, functional dyspepsia, recurrent abdominal pain disorders, irritable bowel syndrome, and functional constipation were identified as clinically relevant conditions in which psychosocial factors warrant assessment alongside symptom duration, bowel habits, and other clinical characteristics [1, 2, 4–6]. Relevant school-related factors include heavy academic workloads, examination-related anxiety, peer conflicts, and difficulties adapting to the school environment. Family-related stressors included interpersonal conflict and perceived lack of support, while lifestyle-related factors involved insufficient sleep, irregular meals, reduced physical activity, and prolonged screen time. Their clinical relevance lies in their potential interactions: stress may disrupt sleep and eating patterns, these disruptions may exacerbate gastrointestinal symptoms, and persistent symptoms may further interfere with school performance and family functioning. However, the available evidence does not permit a ranking of the relative contributions of these exposures or an estimation of their prevalence in Bukhara or any other pediatric population. For clinical interpretation, a structured distinction between symptom patterns and potential alarm features was considered more appropriate than directly attributing abdominal pain to emotional stress. Children with persistent or recurrent abdominal complaints may be assessed using the relevant Rome IV symptom criteria. However, progressive or severe symptoms, gastrointestinal bleeding, unexplained weight loss, impaired growth, persistent vomiting, or other concerning clinical findings warrant appropriately targeted investigations. This approach acknowledges the biopsychosocial contribution to DGBI while avoiding the risk of overlooking infectious, inflammatory, nutritional, or other organic conditions.

Table 1. Evidence-informed domains for pediatric assessment

Clinical domain	Relevant assessment	Interpretive caution
Functional dyspepsia	Meal-related fullness, early satiety, epigastric pain or burning, meals and stressors	Symptoms require Rome IV assessment after appropriate clinical evaluation
Abdominal pain / IBS	Pain frequency, relationship to defecation, stool form and frequency, functional impact	Stress is a modifier; changes in bowel habits and pain must be evaluated together
Functional constipation	Stool withholding, painful stools, toileting habits, diet, school environment	Consider behavioral and physical contributors; evaluate alarm features
Contextual exposures	Sleep, family stress, academic workload, physical activity, eating regularity	Associations do not establish an independent causal role
Safety and differential diagnosis	Growth, weight change, bleeding, persistent emesis, progressive symptoms	Alarm features warrant tailored medical investigation

The available evidence supports a multidimensional interpretation of pediatric gastrointestinal symptoms. School- and family-related stressors, sleep disturbances, dietary patterns, and physical activity levels may be associated with functional abdominal complaints. Their interpretation requires a clear distinction between correlation, biological plausibility, and demonstrated causality. Children may experience genuine pain in the absence of structural abnormalities detectable by routine investigations, and a diagnosis of DGBI should not minimize the severity or functional impact of their symptoms. Equally, psychosocial distress should not be used as a justification for neglecting the evaluation of potential organic disease. The Rome IV criteria provide a structured diagnostic framework that accommodates both principles [1, 2]. The gut–brain interaction model provides a coherent explanation of how stress may influence the perception and regulation of gastrointestinal activity. However, individual molecular pathways were not investigated in this review. Accordingly, discussions of hypothalamic–pituitary–adrenal axis activation, sympathetic signaling, and microbiota-related mechanisms should be regarded as pathophysiological context rather than original clinical findings. Furthermore, the relationship between psychological distress and gastrointestinal symptoms may be bidirectional. This distinction is important for both clinical counseling and research design: a cross-sectional association between examination-related stress and abdominal pain cannot establish whether stress preceded the symptoms, resulted from them, or shared a common underlying factor, such as sleep disturbance.

A useful practical extension is the incorporation of age-appropriate, validated psychosocial assessment into routine history-taking for children presenting with recurrent or persistent gastrointestinal symptoms. Such assessment should also address the functional consequences of symptoms, including school absenteeism, avoidance of meals or toileting, sleep disturbances, and family burden. The resulting management plan may incorporate regular meals, sleep hygiene, age-appropriate physical activity, consistent toileting routines, effective family communication, and psychological support when indicated. These measures should complement, rather than replace, appropriate medical management. Their effectiveness in specific clinical syndromes cannot be quantified because no interventional study was conducted. For future clinical research, the proposed three-group framework could be refined to include children without gastrointestinal symptoms, children with nonspecific gastrointestinal symptoms, and children meeting the pediatric Rome IV diagnostic criteria. Prospective data collection would strengthen the interpretation of temporal relationships. Validated stress and anxiety assessment instruments appropriate for Uzbek- or Russian-speaking populations should be selected or culturally adapted and validated before implementation. Investigators should prespecify diagnostic categories, sample-size assumptions, primary endpoints, such as pain-related disability or symptom frequency, and relevant confounding variables, including age, sex, sleep patterns, dietary factors, and family circumstances. Statistical reporting should prioritize effect sizes and confidence intervals, accompanied by transparent denominators and an explicit description of missing-data handling, rather than relying on p-values alone. The principal limitation of the present review is the absence of original patient-level observations and a reproducible systematic literature-search protocol. Consequently, the results constitute a structured narrative synthesis and conceptual framework rather than findings from an original clinical investigation. Further research is needed to determine whether tailored preventive interventions can meaningfully reduce gastrointestinal symptoms, improve school functioning, or prevent symptom recurrence in clearly defined pediatric populations.

CONCLUSION

Psychoemotional stress may influence the manifestation and severity of gastrointestinal symptoms in children through interacting neural, neuroendocrine, behavioral, and psychosocial pathways. Functional dyspepsia, abdominal pain-related disorders, irritable bowel syndrome, and functional constipation represent important clinical conditions requiring an integrated assessment; however, stress should not be regarded as their sole or universal cause. The appropriate application of Rome IV criteria, careful evaluation of alarm features, and assessment of sleep, dietary habits, physical activity, and family- or school-related stressors can help guide pediatric clinical decision-making. The present work provides a literature-based conceptual framework but does not establish local prevalence rates, causal risk estimates, or the effectiveness of preventive interventions. Further prospective studies using validated assessment instruments and clearly defined clinical outcomes are warranted.

References:

1. Drossman D. A., Hasler W. L. Rome IV—Functional GI Disorders: Disorders of Gut-Brain Interaction. Gastroenterology. – 2016. – Vol. 150, No. 6. – P. 1257–1261. DOI: 10.1053/j.gastro.2016.03.035.
2. Hyams J. S., Di Lorenzo C., Saps M., Shulman R. J., Staiano A., van Tilburg M. Functional Disorders: Children and Adolescents. Gastroenterology. – 2016. – Vol. 150, No. 6. – P. 1456–1468.e2. DOI: 10.1053/j.gastro.2016.02.015.
3. Vernon-Roberts A., Alexander I., Day A. S. Systematic Review of Pediatric Functional Gastrointestinal Disorders According to the Rome IV Criteria. Journal of Clinical Medicine. – 2021. – Vol. 10, No. 21. – Article 5087. doi:10.3390/jcm10215087.
4. Drossman D. A. Functional Gastrointestinal Disorders: History, Pathophysiology, Clinical Features and Rome IV. Gastroenterology. – 2016. – Vol. 150, No. 6. – P. 1262–1279.e2. DOI: 10.1053/j.gastro.2016.02.032.
5. Barash L., Lindmoen C., Borlack R. E. What is new in abdominal pain-related disorders of the gut-brain interaction in children. Current Opinion in Pediatrics. – 2026. – Vol. 38, No. 5. – P. 477–483. DOI: 10.1097/MOP.0000000000001597.
6. Blanding D., Belkind-Gerson J., Kilgore A. L. Disorders of gut-brain interaction in children: what is new. Current Opinion in Pediatrics. – 2025. – Vol. 37, No. 5. – P. 452–456. DOI: 10.1097/MOP.0000000000001488.

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