

MEDICAL AND SOCIAL STATUS, CAREGIVER BURDEN, AND QUALITY OF LIFE INDICATORS OF FAMILIES OF CHILDREN WITH BRONCHIAL ASTHMA

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Abstract

Aim of the study: to investigate the medical and social problems of families raising children with bronchial asthma.

Materials and methods. The study was conducted in 2025–2026 at the clinic of Tashkent State Medical University, in the outpatient and allergology departments, as well as at Family Polyclinic No. 44 of the Shaykhantakhur district of Tashkent. The study included 42 children with bronchial asthma aged 11 to 17 years who were under outpatient follow-up.

Results and discussion. According to the questionnaire results, the level of awareness about the disease was assessed as sufficient in 18 families (42.9%), while 24 families (57.1%) demonstrated insufficient knowledge regarding the principles of basic therapy and prevention of exacerbations. Regular use of maintenance therapy was reported in 26 patients (61.9%), whereas 38.1% (n=16) admitted irregular medication intake. Decreased quality of life associated with limited physical activity and school absenteeism was reported by 27 families (64.3%). Psycho-emotional stress related to the child's illness was indicated by 21 families (50.0%). Financial burden associated with treatment and examinations was reported by 18 families (42.9%).

Conclusion. A comprehensive medical and social approach to the management of children with bronchial asthma and their families is an important factor in improving treatment effectiveness and quality of life.

Keywords

bronchial asthma, children, medical and social problems, quality of life, family adaptation, disease control, compliance, educational programs.

Relevance. Bronchial asthma remains one of the most common chronic diseases of childhood and represents a serious medical and social problem worldwide. According to international epidemiological studies, the prevalence of asthma among children remains high, and in adolescence, the incidence of uncontrolled forms of the disease tends to increase. Its chronic, relapsing course,

the need for long-term anti-inflammatory therapy, and regular medical monitoring make bronchial asthma not only a clinical but also a significant medical and social problem [1, 2, 5].

The disease affects not only the child's physical condition but also their psychoemotional development, academic performance, and social adaptation. Frequent exacerbations, limited physical activity, missed school classes, and anxiety associated with asthma attacks reduce the quality of life of patients. At the same time, the psychological and social burden on parents increases, which affects family relationships, work activity, and the family's economic situation [4, 6, 7].

Lack of awareness of the disease, non-adherence to basic therapy, and poor compliance remain significant factors hindering asthma control. In many cases, parents and adolescents themselves lack knowledge about the mechanisms of the disease, principles of exacerbation prevention, and the need for regular use of inhaled anti-inflammatory drugs. This leads to increased hospitalization rates, increased financial costs, and a deterioration in quality of life [5, 8].

With the modernization of the healthcare system and the strengthening of preventive medicine, a comprehensive assessment of the medical and social status of families raising children with asthma is particularly important. Studying the level of awareness, social adaptation, and quality of life allows us to identify key problematic aspects and develop targeted educational and rehabilitation programs [1, 3].

Thus, the study of medical and social problems and the quality of life of families of children with bronchial asthma is a relevant area of modern pediatrics, which has important scientific and practical significance for increasing the effectiveness of treatment and improving the social adaptation of patients.

Purpose of the study: to study the medical and social problems of families raising children with bronchial asthma.

Materials and methods of research. The study was conducted in 2025–2026 at the Tashkent State Medical University clinic in the outpatient and allergy departments, as well as in the 44th rural hospital in the Shaykhantakhur district of Tashkent.

The study included 42 children with bronchial asthma, aged 11 to 17 years, who were undergoing outpatient care. Patients were selected based on clinical and anamnestic data and a confirmed diagnosis of bronchial asthma, in accordance with current clinical guidelines.

To assess medical and social aspects and disease awareness, we developed our own questionnaires: one for patients and one for their family members. The questionnaires included questions aimed at assessing knowledge about the disease,

principles of basic therapy, symptom management, adherence to physician recommendations, and assessing the impact of the disease on social activity, education, and the family's psycho-emotional state.

The obtained data were subjected to comparative and descriptive statistical analysis in order to determine the main medical and social problems and factors influencing the quality of life of families of children with bronchial asthma.

Results and their discussion. The study included 42 children with bronchial asthma aged 11–17 years. Of these, 24 were boys (57.1%) and 18 were girls (42.9%). The average duration of the disease was 3.0 ± 1.1 years. In 61.9% of patients (n=26), the disease duration did not exceed 3 years, and in 38.1% (n=16), it exceeded 3 years.

Based on the degree of disease control, it was found that the disease was controlled in 16 patients (38.1%), partially controlled in 17 (40.5%), and uncontrolled in 9 children (21.4%). Frequent exacerbations (≥ 3 per year) were recorded in 14 adolescents (33.3%), which was more common among boys (58.3% of boys versus 44.4% of girls).

According to the survey results, 18 families (42.9%) rated their disease awareness as sufficient, while 24 families (57.1%) demonstrated insufficient knowledge of the principles of basic therapy and exacerbation prevention. Regular use of basic therapy was noted in 26 patients (61.9%), while 38.1% (n=16) admitted to irregular medication intake.

A decrease in quality of life associated with limited physical activity and missed school classes was reported by 27 families (64.3%). Psycho-emotional stress in the family due to the child's illness was reported by 21 families (50.0%). Financial burden associated with treatment and examinations was noted by 18 families (42.9%).

The data obtained indicate that bronchial asthma has a significant impact not only on the clinical condition of adolescents but also on the medical and social status of their families. Lack of awareness and inconsistent adherence to basic therapy remain significant factors affecting disease control and quality of life. This underscores the need for enhanced educational programs for patients and their parents, as well as comprehensive medical and social support for the families of children with bronchial asthma.

Summary. The study showed that bronchial asthma in adolescents has a significant impact not only on the clinical course of the disease but also on the medical and social well-being of their families. Despite the relatively short average duration of the disease (3.0 ± 1.1 years), a significant proportion of patients

experienced a partially controlled or uncontrolled course of the disease, which impacts their quality of life and social adaptation.

Insufficient awareness of the principles of basic therapy and exacerbation prevention was identified among some families, as well as cases of irregular use of anti-inflammatory medications. These findings suggest the need to strengthen educational programs aimed at increasing compliance and improving disease management.

Thus, a comprehensive medical and social approach to the care of children with bronchial asthma and their families is essential for increasing treatment effectiveness and improving quality of life.

Conclusions

1. Among the examined children with bronchial asthma, boys predominated (57.1%), with an average disease duration of 3.0 ± 1.1 years.
2. Partially controlled or uncontrolled asthma was detected in 61.9% of patients, indicating insufficient disease control.
3. Insufficient awareness of the disease was noted in more than half of families (57.1%), negatively impacting adherence to basic therapy.
4. Decreased quality of life and limited social activity were reported in 64.3% of families.
5. The obtained results confirm the need to implement comprehensive educational and medical-social programs to improve bronchial asthma control in children and enhance the quality of life of their families.

REFERENCES:

1. Разварина И. Н., Шматова Ю. Е., Гордиевская А. Н. О ПОВЫШЕНИИ КАЧЕСТВА ОЦЕНКИ ГРУПП ЗДОРОВЬЯ НОВОРОЖДЕННЫХ ДЕТЕЙ // Социальные аспекты здоровья населения. – 2022. – Т. 68. – №. 6. – С. 9.
2. Čibirkaitė A. et al. Quality-of-life assessment in children with mild to moderate bronchial asthma // Medicina. – 2024. – Т. 60. – №. 5. – С. 771.
3. da Silva C. R. V. et al. Anxiety is associated with asthma severity in adolescents: a school-based epidemiological study // Respiratory Medicine. – 2026. – С. 108731.
4. Kharaba Z. et al. An assessment of quality of life in patients with asthma through physical, emotional, social, and occupational aspects. A cross-sectional study // Frontiers in public health. – 2022. – Т. 10. – С. 883784.

5. Plaza-González S. et al. Psychological and sociocultural determinants in childhood asthma disease: impact on quality of life //International journal of environmental research and public health. – 2022. – T. 19. – №. 5. – C. 2652.
6. Rodríguez-Jiménez E. et al. Psychological Intervention Strategies in Adolescents with Asthma: A Review of the Literature //Children. – 2026. – T. 13. – №. 2. – C. 181.
7. Smith H. et al. Pediatric Bronchiectasis Quality-of-Life Questionnaire – What Does the Literature Say? //Pediatric Pulmonology. – 2026. – T. 61. – №. 2. – C. e71490.
8. Yingying Y., Yi W., Xu H. Association between Caregiver Social Support, Family Management, and Asthma Control in Children Aged 1-7 Years //Journal of Asthma. – 2026. – №. just-accepted. – C. 1-14.