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**METHODS OF STUDYING THE LIFE CHARACTERISTICS OF CHILDREN
WITH ALLERGIC DISEASES**

Abdulkhakova Ranokhon Mukhtaraliyeva
*Andijan State Medical Institute,
Andijan, Uzbekistan*

Abstract. *Despite the relatively large number of questionnaires for children, the data of this article suggest that the measurement of quality of life should be used more widely in pediatric studies. The prevalence of allergic pathology is associated with a significant impact on the daily life of patients, which, of course, affects important socio-economic areas of activity. It has been established that the improvement of the quality of life is clearly associated with adequate treatment, which is manifested in patients with bronchial asthma, especially in children.*

Keywords: *quality of life, children, allergic diseases.*

**МЕТОДЫ ИЗУЧЕНИЯ ОСОБЕННОСТЕЙ ЖИЗНИ ДЕТЕЙ С
АЛЛЕРГИЧЕСКИМИ ЗАБОЛЕВАНИЯМИ**

Абдулхакова Раънохон Мухтаралиевна
*Андижанский государственный медицинский институт,
Андижан, Узбекистан*

Резюме. *Несмотря на относительно большое количество опросников для детей, данные данной статьи позволяют предположить, что измерение качества жизни следует шире использовать в педиатрических исследованиях. Распространенность аллергической патологии связана со значительным влиянием на повседневную жизнь больных, что, безусловно, затрагивает важные социально-экономические сферы деятельности. Установлено, что улучшение качества жизни явно связано с адекватным лечением, что проявляется у больных бронхиальной астмой, особенно у детей.*

Ключевые слова: *качество жизни, дети, аллергические заболевания.*

Since time immemorial, the wisest aphorism of Hippocrates has come down to us: “Treat the sick, not the disease.” In progressive medicine, this is reflected in the opinion of “quality of life” (QL). Contemplation highlights the idea of how a bedridden person endures his own illness. It is clear, in fact, that the imprisonment of a doctor of classical traditional medicine cannot be an absolute and impartial description of the impact of the disease on the patient’s situation and other aspects of his life, especially the sensory and social spheres [2, 7]. Assessing the quality of life is considered one of the values of progressive medicine and is considered an essential part of a comprehensive analysis of new methods of diagnosis,

treatment and prevention [5, 14].

The term "quality of life" first appeared in 1920, but was soon forgotten and came into use in the 1960s, when the WHO expanded the definition of health to include not only physical, psychological and social well-being. The absence of diseases WHO recommends defining the quality of life as "the state and role of a person in the life of society, taking into account the culture and value system of this society, the goals of a certain person, his plans, opportunities and subjective attitudes in the life of society." In other words, self-esteem is the level of comfort of a person in himself and in society [1, 2, 7, 15].

Another definition was proposed by some researchers: "Quality of life is an integral feature of the patient's physical, psychological, emotional and social activity based on subjective perception." Or another: "Quality of life is a descriptive term that reflects a person's emotional, social, and physical well-being and ability to perform normal life tasks" [2, 4, 5, 7, 9].

This approach, which takes into account the quality of human life, has become very popular in modern medicine. Undoubtedly, the introduction of the concept of "quality of life" into the practice of somatic medicine can be considered a significant success compared to the traditional tendency to focus only on the disease and its symptoms. Therefore, the study of this criterion as one of the most important indicators of the effectiveness of therapy carried out by individual doctors and the appropriateness of such management on the scale of the entire field of patient health plays a particularly important role. Taking into account the high prevalence and great medical and social importance of the consequences of chronic respiratory diseases, it is very important to study the quality of life of people suffering from these diseases [4,8,12].

In clinical and population studies, the following components are distinguished to assess the quality of life:

- psychological well-being;
- social welfare;
- physical well-being;
- spiritual well-being.

Medical aspects of quality of life are described [2]:

— functional abilities, including maintenance of physiological functions that allow daily activities, social, intellectual and emotional functions;

— perception, which includes the person's views and judgments about the values of the above-mentioned components, the general state of health, the level of well-being and life satisfaction;

— symptoms that are a consequence of the main or accompanying pathology are reduced or disappear due to the intervention, but may appear due to the side effects of drugs or the development of the process.

The results of the quality of life study allow to compare the effectiveness of various treatment methods, rehabilitation programs, and primary and secondary prevention measures. This criterion is widely used to assess health status in epidemiological studies, approval of new drugs [1, 4, 6, 14].

Leading international centers for the study of quality of life in pediatrics:

- Mapi Research Institute (Lyon, France);
- Children's Health Outcomes Center, Children's Hospital and Health Center (San Diego, USA);
- Health Law (Boston, USA);
- Department of Medical Psychology of the University of Hamburg (Germany);
- Institute of Health Economics and Alberto University (Edmonton, Canada);
- Child Health TNO Department of Prevention and Health (Leiden, The Netherlands).

Today, it is customary to study the quality of life using special questionnaires (questionnaires), which are divided into:

- general — assessment of the quality of life of healthy and sick people suffering from various diseases, assessment of the effectiveness of medical care;
- special — evaluation of the results of specific measures for the treatment of a certain disease in a relatively short time.

Various versions of questionnaires based on examples used in allergology are presented below.

Questionnaires to assess the quality of life of patients with allergic diseases [13]:

General indexes:

- Visual Analogue Scale for Quality of Life (VAS-QoL);
- Feeling Thermometer, Quality of Well-Being, Standard Gamble;
- Medical Outcomes Survey Short Form-36 (SF-36);
- Medical Outcomes Survey Short Form-12 (SF-12);
- Euro-QoL;
- Munich Life Dimension List (MLDL);
- Satisfaction Profile (SAT-P);
- Work Productivity and Activity Impairment (WPAI-AS).

Special questionnaires for rhinitis:

— Rhino conjunctivitis and Rhinitis Quality of Life Questionnaire (RQLQ) and variants:

- Mini-RQLQ;
- RQLQ-children;
- RQLQ-adolescents;
- Nocturnal Rhinitis Quality of Life Questionnaire (NRQLQ);
- ESRINT and mini-ESPRINT questionnaire;
- Rhin asthma;
- Pediatric Allergic Disease Quality of Life Questionnaire (PADQLQ);
- Rhinitis Outcome Questionnaire. Special questionnaires used in dermatological

diseases:

- Dermatology Life Quality Index (DLQI);
- Children's Dermatology Life Quality Index (CDLQI);
- Dermatology Quality Of Life Scales (DQOLS);
- Dermatology-Specific Quality of Life (DSQL);

- Skindex-29;
- Skindex-16;
- Questionnaire on Experience with Skin Complaints (QES);
- VQ-Dermato.

A special questionnaire for patients with chronic urticaria:

- Chronic Urticaria and Quality of Life Questionnaire (CU-Q2oL).

Special questionnaires for patients with bronchial asthma (BA):

- Asthma Quality of Life Questionnaire (AQLQ);
- Standardized Asthma Quality of Life Questionnaire (AQLQ(S));
- Mini Asthma Quality of Life Questionnaire (Mini AQLQ);
- Asthma Quality of Life Questionnaire for 12 years and older (AQLQ + 12);
- Acute Asthma Quality of Life Questionnaire (AQLQ);
- Pediatric Asthma Quality of Life Questionnaire (PAQLQ) — original;
- Standardized Pediatric Asthma Quality of Life Questionnaire (PAQLQ(S));
- Mini Pediatric Asthma Quality of Life Questionnaire (Mini PAQLQ);
- Pediatric Asthma Caregiver's Quality of Life Questionnaire (PACQLQ).

Among allergology questionnaires in a general format, in particular, in patients with respiratory pathology, the SF-36 questionnaire (Medical Outcome Study 36 — Item Short Form Health Survey) is often used, and if used, it can also be used to assess the quality of life of patients with chronic urticaria. Visual analog scales - Visual analog scales (VAS) are valid for patients with allergic rhinitis, chronic urticaria and other allergic diseases and are often used in pediatrics. However, in studies where a specific allergic nosology has emerged, it is better to use special (disease-specific) options, because they are sensitive and specific. In particular, the most popular for studying the quality of life of patients with allergic rhinitis is the Chronic Urticaria Quality of Life Questionnaire (CU-Q2oL) proposed by Juniper [14], the Quality of Life Questionnaire of patients with chronic urticaria [9], with atopic dermatitis - Dermatology Life Quality Index (DLQI) [12], which allows an adequate evaluation of the chronic process in the skin.

Each questionnaire should meet the following requirements: multidimensionality; simplicity and brevity; acceptance and use in different linguistic and social cultures. Its psychometric properties are also important: reliability (accuracy of measurement), validity (probability) and sensitivity (detection of changes in indicators).

To date, more than 1,000 general and specific questionnaires have been registered, most of which were created in the USA, Canada and the UK. It is generally recognized that the concept of research on HS in pediatrics is a new but promising scientific direction with great potential for clinical practice. In addition, the methodology of its evaluation is an important component of pharmaco-economic calculations, which helps to determine the economic feasibility of using new drugs or treatment schemes for children and the most acceptable standards of therapy in pediatrics ("Cost-effectiveness", "cost-benefit" and indicators such as others) allow reasoning based on analysis. A distinctive feature of determining the quality of life of children is that the modules of the questionnaires differ depending on age, in addition, both the child and his parents participate in the research

process.

Due to the constant deterioration of children's health and well-being, over time, the concept of "quality of life" has taken on a slightly different tone: "It is the child's perception and evaluation of various areas of life and feelings related to problems" [5, 10]. This problem is especially relevant in children with chronic allergic diseases (atopic dermatitis (AD), allergic rhinitis, bronchial asthma). In particular, according to foreign researchers, assessing the quality of life is one of the main tasks of monitoring the effectiveness of atopic dermatitis therapy. Currently, it occupies a large share among skin diseases that significantly disrupt the normal lifestyle, harmonious and spiritual development of children, contribute to the psychopathological formation of personality, cause difficulties in choosing a profession and starting a family. [3,13,15]. Children with AD suffer not only from skin rashes, itching, and bruises, but also have limitations in their daily activities (social, physical). They have problems with sleep disorders, emotional imbalances (anxiety, nervousness), the need not to be exposed to factors that provoke exacerbations (sun, cold air, water, etc.), all of which lead to a decrease in the quality of life [11]. Psychosomatic assessment of these patients reveals a high level of anxiety and deepening introversion, because atopic dermatitis leads to psychological conflicts that play an important role in the pathogenesis of the disease and affect the choice of treatment tactics for children [8].

Today, publications on the quality of life of children with bronchial asthma are often found in the pages of specialized periodicals and online publications. In particular, the Australian Institute of Health and Welfare published data from a population study that assessed the quality of life of healthy people and patients with bronchial asthma.

Figure 1. We can observe a clear possible difference between them: "excellent" and "very good" assess the well-being of people who do not suffer from AD; In most cases, patients with asthma feel "good", "moderate" and "bad".

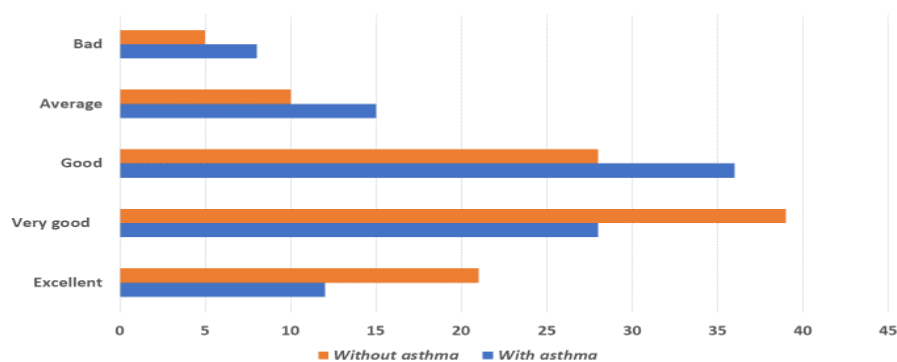


Figure 1: Percentage of the population

This trend is also related to work/study processes, as shown in Figure 2. According to the Australian Asthma Monitoring Center (AAMM), these data once again emphasize the priority of improving the quality of life of children with asthma, because of emotional factors, limitations in the social sphere, dependence

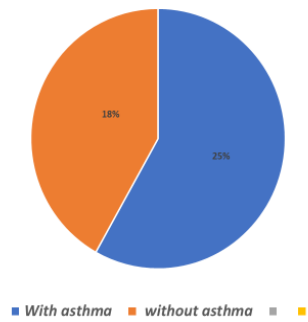


Figure 2: Individuals who missed training due to long-term work/study in the last 12 months

on environmental factors, diseases. On the basis of our department and the pulmonology department of Andijan regional multidisciplinary children's clinical hospital, in order to evaluate the effectiveness of basic therapy in children with bronchial asthma, especially within the framework of asthma school activities and post-prophylaxis work. marketing research, quality of life questionnaires with standardized activities for children are more widely used. The questionnaire was adapted for Uzbekistan in Uzbek and Russian languages [5].

It includes 23 questions describing symptoms (S), activity limitation (AL) and emotional domain (ED) during the last seven days.

S:

- cough;
- tired;
- asthma attacks;
- wheezing;
- a feeling of tightness in the chest;
- shortness of breath;
- you wake up at night;
- insufficient air;
- difficulties with night sleep;
- deep breath.

AL:

- physical stress;
- staying with animals;
- doing things together with friends and family members;
- you cannot do the same things as others;
- prevented me from doing everything.

ED:

- feeling sad and angry because you can't do what you want because of asthma;
- anxious, anxious;
- mischievous;
- angry;
- you do not feel that you are not like others or that you are superfluous;
- upset and angry because you cannot do the same things as others because of asthma;

- uncomfortable;
- afraid of an asthma attack.

The questionnaire uses a specific format of questions, so it is important that the interviewer adheres to the exact wording shown in a certain font when addressing the patient. Deviations from the instructions may affect the reliability and validity of the questionnaire.

Parents should not be present during the survey, as children's feelings need to be assessed. Some parents may want to influence this assessment, while some children may want to rely on parental guidance. First of all, it is necessary to convince the child that there are no right or wrong answers. There is no need to explain the question, you need to pay attention to the child and read it again with maximum effort. It is also necessary to make sure that the child understands the time period "for seven days". If in doubt, ask the parent to recall an event that happened last week, and then ask the child to think about how he or she felt after that event. Then he is shown a card with answer options. Children who can read choose the answer by reading aloud, while younger children must be read together. Answer options are rated on 7 levels: "very disturbed" or "always" (1) to "not disturbed" or "never" (7).

As a result of the conducted research, we were able to determine that the mild course of AD has a moderate negative impact on the quality of life of children, which is probably related to the presence of the disease itself, and not to the actual limitations imposed by the disease on the child's physical and psychological condition. Moderately severe BA certainly creates certain restrictions on children's physical activity, which leads to a decrease in family activity and negatively affects the emotional state. At the same time, the psychosocial condition of patients is almost no different from that of their peers, except for low self-esteem. Severe BA significantly affects the physical and psychosocial components of HS, while the greatest deviations from the average statistical indicators are noted for indicators describing the child's physical condition and family functioning.

Thus, if the goal is to normalize the quality of life of children with asthma, its monitoring is necessary primarily for patients with a severe form of asthma. In addition, the results of many studies allow us to talk about the possibility of normalizing the quality of life against the background of adequate anti-inflammatory therapy [15]. This positive phenomenon begins to work during long-term (at least 12 weeks) anti-asthma therapy, and the best results are achieved with the combined use of inhaled glucocorticosteroids and long-acting R2 agonists [14]. Today, allergy schools are being actively created to educate patients with allergic diseases and improve their quality of life, because it is important not only to choose the right treatment tactics, but also for the patients themselves to understand the disease and cope with it mentally. Therefore, one of the most important areas of modern treatment of allergic diseases is training programs conducted within allergy schools, the effectiveness of which is confirmed by a decrease in the subjective severity of the disease, which is related to the frequency of its exacerbation, and increases physical and social activity.

Thus, one of the urgent tasks of local pediatrics and allergology is to study the quality of life of sick children, as well as to develop and implement targeted educational programs for patients in order to prevent the exacerbation and development of the disease.

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