

## PEDIATRICS

*Gonchar M.O., Omelchenko O.V., Strelkova M.V., Yermolayev M.N., Silicheva A.E.*

# DETECTION OF PSYCHOLOGICAL CHARACTERISTICS IN CHILDREN WITH CHRONIC GASTROINTESTINAL DISEASES USING MOS-SF-36 QUESTIONNAIRE

Kharkiv National Medical University, Ukraine

**Abstract:** the article describes the main approaches in the study of psychological characteristics in children with chronic gastroenterological diseases according to MOS SF-36 questionnaire.

**KeyWords:** children, MOS-SF-36 questionnaire, chronic gastrointestinal diseases.



## INTRODUCTION

The World Health Organization defines Quality of Life as the individuals' perception of their position in life within the framework of culture and value systems they live in and in relation to their goals, expectations, standards and concerns [1].

Any disease affects both physical and psychological conditions, changing emotional reactions, place and role in everyday life. It is very important to get a complete picture of the disease impact on the most important humans' functions when studying the nature of the disease. Identification of the exact type of abnormality and the level of severity is essential for right planning, treatment and rehabilitation. Physicians often assess only physical, laboratory and instrumental data describing only the physical condition of the patient. The majority of doctors are not interested in the information on individual psychological and social problems that have emerged due to the disease [2, 3].

In recent years, evaluation of quality of life (QOL) has become an important new methodological approach to assess the results of medical interventions in clinical and epidemiological studies in the countries with high levels of medicine, because the traditional criteria of effectiveness of medical measures, reflecting changes in the physical condition, do not give the full picture not only of the physical but also psychological and social condition of the patient. QOL research methodology enhances capabilities of standardization of treatment, provides individual monitoring with the evaluation of early and long-term results of treatment, develop predictive models of disease course and outcome in the practice of health care [4, 5].

In other words, it is a new an integral approach to complex evaluation of the patient's health, that is based on the set of objective medical data and subjective evaluation of the patient.

## 2 PURPOSES, SUBJECTS AND METHODS:

### 2.1 Purpose

As the quality of life depends on the health status of children with chronic gastroenterological diseases, the purpose of the work was to study physical and psychological presentation in children with

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### *Corresponding Author:*

*Olena Omelchenko, MD, PhD, Associate professor, Department of Pediatrics 1 and Neonatology, Kharkiv National Medical University, Ukraine. E-mail: [helenomelchenko@mail.ru](mailto:helenomelchenko@mail.ru).*

gastroenterological disorders according to MOS SF-36 questionnaire.

## 2.2 Subjects & Methods

Quality of life was assessed in 66 patients aged from 2 to 17 years (of them, 32 girls (48.5%) and 34 boys (51.5%) with diseases of the digestive system. The average age of the patients was  $11.3 \pm 4.1$  years. The survey respondents were treated at gastroenterology department of Kharkiv Regional Children's Clinical Hospital within the period from 2015 to 2016. The control group consisted of 47 age- and gender matched healthy children (students of Merefa gymnasium No. 1). The average age was  $12.1 \pm 3.2$  years; boys - 25 (48.1%) and girls - 22 (51.9%).

The examined children with gastrointestinal diseases were diagnosed with chronic gastritis (42.4%), biliary dyskinesia (15.2%), pancreatopathy (12.1%), duodenal ulcer (9.1%).

The quality of life was assessed with the help of the questionnaire. Patients or their parents completed questionnaires, and then its individual parts were analyzed with special scales or summary index.

The Short Form Health Survey (MOS SF-36) is one of the most common methods for evaluating the quality of life related to health. The questionnaire Medical Outcome Study- SF-36 consists of 36 questions forming the eight scaled scores, which are the weighted sums of the questions in their section: vitality (VT), physical functioning (PF), bodily pain (BP), general health perceptions (GH), physical role functioning (PR), emotional role functioning (RE), social role functioning (SF), mental health (MH).

The questionnaire assesses two components of health: physical and psychological. Each scale is directly transformed into a 0-100 scale on the assumption that each question carries equal weight. The higher the score the less the disability, i.e. a score of zero is

equivalent to maximum disability and a score of 100 is equivalent to absence of a disability.

## Conflict of interests

There is no conflict of interests.

## 3 RESULTS AND DISCUSSION

The survey patients with gastrointestinal abnormalities and children without digestive disorders gave answers, describing the quality of life. The survey results are presented in Table 1.

Table 1.  
Quality of life in children with gastrointestinal diseases

	PF	RP	BP	GH	VT	SF	RE	MH
The main group N=66	76.7 ±6.4	71.2 ±4.9	69.1 ±5.3	56.3 ±6.4	64.4 ±4.4	68.9 ±6.4	70.7 ±3.3	64.7 ±7.6
The control group N=47	93.6 ±5.6	97.4 ±7.1	87.2 ±8.6	70.4 ±8.8	66.3 ±2.8	83.4 ±2.1	88.7 ±2.2	78.3 ±9.5
p	p< 0.05							

Exacerbation of chronic gastrointestinal diseases causes pain, which is reflected in the reduction of bodily pain indices from  $87.2 \pm 8.6$  to  $69.1 \pm 5.3$ . It is worth mentioning a decrease in the indices of physical activity from  $93.6 \pm 5.6$  to  $76.7 \pm 6.4$ . significantly worsening emotional role functioning from  $88.7 \pm 2.2$  to  $70.7 \pm 3.3$ . The ability to perform social responsibilities also reduced from  $83.4 \pm 2.1$  to  $68.9 \pm 6.4$ . There has been a decrease from  $70.4 \pm 8.8$  to  $56.3 \pm 6.4$  on the general health scale. Physical condition also significantly declined from  $97.4 \pm 7.1$  to  $71.2 \pm 4.9$ .

The received data due to the fact that the 12-duodenum synthesizes regulatory peptides to support not only the digestive tract but also participating in neuroregulation (for which it was called "pituitary gland" of the gastrointestinal tract); also the results showed systematic changes of

the microorganisms in local gastroduodenal lesions. Thus, there is the tendency to deterioration in each indicator of the quality of life: physical and psychological health scales.

#### 4 CONCLUSIONS

The quality of life in children with gastroduodenal pathology is lower than in healthy children; it is mostly associated with a decrease in physical component. The most significant violations of life quality were observed in patients in role-functioning due to the physical component (RP) that is lowered ability of their daily social responsibilities. The study also showed a reduction in such indices as bodily pain (BP) due to exacerbation of diseases of the digestive system; general health (GH) reduction triggered by gastroduodenal abnormalities affecting the general condition of the patient and potentiating other organs and systems diseases. The psychological component of health also suffers mainly due to the emotional role functioning (RE). Thus, the quality of life in children with gastroenterological diseases is reduced both by physical and psychological component.

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