

# EC CLINICAL AND MEDICAL CASE REPORTS

Research Article

# Behavioral Characteristics of Younger Schoolchildren (Assessed by Parents) for Discussion of the Question on Therapeutic Strategies

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#### **Abstract**

The purpose of this observation is to study the level of anxiety in younger schoolchildren according to parental surveys. The survey showed that out of 70 observations in 50 cases (71.4%). The personality characteristics of children were noted, which made it possible to identify 5 variants of behavioral disorders. The predominant types of behavior were irritability (44.5%), disorders of adaptive reactions (42.8%) and increased excitability (20.4%).

The approach used (survey of parents) made it possible to identify a group of children with increased anxiety, which was not previously established and, accordingly, was not considered as a borderline condition that requires special attention due to the high risk of developing an anxiety-neurotic disorder of a personality type that negatively affects the intellectual development of the child and somatic health.

A significant proportion of children with autonomic nervous system symptoms may indicate the subsequent impact of increased anxiety on the development of functional disorders in various organs and systems.

Keywords: Children; Schoolchildren's Health; Behavioral Characteristics; Parents' Survey

# Introduction

The growing interest in the problem of personal anxiety in children is confirmed by numerous scientific publications, in which the process of formation of anxiety states in school conditions is of particular interest to specialists [1-3].

According to the World Health Organization, the school is considered as a socially significant factor in the development of maladaptation among students, because primary school education for a child is associated with certain difficulties (new social contacts, problems of adaptation, requirements of parents and teachers for the success of educational activities, etc.), which lead to feelings, depressed mood, uncertainty, indecision and fears [4].

Anxiety in a general sense refers to the subjective manifestation of a person's troubles and is considered as an experience of emotional discomfort, a premonition of an unpleasant situation or danger. The difficulty lies in the fact that anxiety can become a stable characteristic of a person with a confrontation with respect to real possibilities and a subsequent impact on emotional well-being, a sense of confidence, security, etc. [5,6].

Currently, there are studies showing that anxiety that originated in childhood, under adverse circumstances, becomes a stable set of habits and preferences, as well as mental attitudes and a set of psychophysical characteristics that determine everyday behavior. The risks of developing anxiety may appear as early as preschool and primary school age [7,8].

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A number of studies confirm that the number of children with increased anxiety, self-doubt, emotional instability is increasing. Consolidation and intensification of anxiety occurs according to the mechanism of a "vicious psychological circle", leading to the accumulation of negative emotional experience, generating negative prognostic estimates, determining the attitude to external factors and contributing to the persistence of anxiety. The experience of trouble in school conditions is designated in different ways: "school neurosis", "school phobia", "didactogeny", "didactogenic neurosis". Each of the definitions indicates different states of schoolchildren, but they all lead to emotional instability and impaired adaptation [9-11].

The term "behavioral and psychological features" is used as a convenient descriptive term that does not take into account pathogenetic and psychodynamic mechanisms, but indicates the characteristic variability of behavior (agitation, hyperactivity, psychomotor retardation). In accordance with WHO recommendations, this means a violation of psychological functioning and a decrease in productivity in the performance of a social role (study, interaction with peers and parents, etc.). In other words, these are the features of childhood, which are characterized by the peculiarity of emotional reactions. This approach does not contradict the general rule of ICD-10 and does not imply a specific nosology, but is recommended for a certain age group and is of interest for assessing behavior, dynamic monitoring and deciding on the need for corrective measures (without drugs and medicines).

# Purpose of the Study

To study the level of school anxiety among younger schoolchildren according to the data of parents' questionnaires.

#### **Research Methods**

To achieve this goal and based on the hypothesis of a high level of anxiety in children at the stage of primary school education, a target sample of children was formed. The selection was carried out on the basis of specified characteristics (gender, age, level of education), taking into account certain behavioral characteristics noted by parents, for subsequent comparison of data obtained in the target and control groups. The study was carried out in the conditions of a typical school in Krasnoyarsk.

The results of a survey of parents of 70 children of primary school age (grades 1 - 4) were analyzed. The authors used the technique of Lavrent'eva G.P., Titarenko T.M. (1992); this questionnaire is designed to determine the level of anxiety in children of a specified age [12]. The questionnaire includes 20 questions-statements (a positive answer to each proposed statement is estimated at 1 point) with subsequent calculation of the total score, on the basis of which a conclusion was made about the level of anxiety of the child.

# Data interpretation:

- High level of anxiety: 15 20 points
- Average level of anxiety: 7 14 points
- Low level of anxiety: 1 6 points.

Statistical processing was carried out using the STATISTIKA 6.0 application package. For all data, absolute indicators and a percentage characterizing the proportion of children with a certain trait were calculated. Comparison of qualitative features was carried out using the calculation of differences (z-test). A test used to compare two average values and find differences in samples with a known value of the variance by Z-test according to V.Yu. Urbach [13].

This study was approved by the Ethics Committee of the Krasnoyarsk State Medical University named after Professor V.F. Voyno-Yasenetsky Ministry of Health of the Russian Federation (protocol No. 58 dated February 10, 2020). The studies were conducted after the signing of the informed consent by the legal representatives of the child.

#### **Results and Discussion**

An analysis of the data obtained as a result of a survey of parents made it possible to form a target group of dynamic observation, which included 50 children with a high and medium level of anxiety. The control group consisted of 20 schoolchildren with stable behavioral characteristics according to the conclusion of their parents.

All identified signs indicating behavioral disorders were grouped to resolve the issue of the need for medical correction with an anxiolytic drug. This approach made it possible to designate five variants of behavioral disorders, each of which is represented by a certain set of features from among those indicated in the questionnaire (Table 1).

		Target group		The control	
Variants of behavioral disorders	Numbers of questions of questionnaires (features) with positive. answers	Number of fea- tures	% from all the symp- toms	Number of fea- tures	% from all the symp- toms
Irritability	2,3,17,24	22	44,5	3	15*
Disorders of adaptive reactions	1,5,12,14,18	21	42,8	3	15*
Anxiety	4,8,13,18	13	25,6	2	10
Hyper excitability	6,13,14,15,16	10	20,4	0	0*
Autonomic nervous system disorders		8	15,5	2	10

Note: \*Statistically significant differences between the two samples (z-test) at p < 0.05.

Next, we consider the results of the survey with the most frequent positive responses (signs) characterizing anxiety, and their identification in the target and control groups.

The analysis of questionnaires in the target group showed the following: the median of positive answers was 10 (Q1-Q3, respectively, 8 - 11), which indicates an average level of anxiety (7 - 14 according to the recommendations of the authors of the study) (questionnaire).

Signs characterizing increased irritability (variant 1 of behavioral features) were observed with the highest frequency, which amounted to 44.5% and significantly exceeded the control (p < 0.05). It is known that increased irritability in a child is a certain state of the nervous system, manifested by excessive sensitivity to external stimuli, regardless of the reasons. Unfortunately, in everyday life, parents and the environment of the child do not always pay attention to such behavioral features. At the same time, the correction of these disorders requires not only the elimination of irritating factors, but also drug therapy according to indications. According to our data, parents with the highest frequency noted excessive anxiety in response to any task and poor tolerance of expectation (impatience), which were recorded in 64% and 68% of responses, respectively (sign numbers in the questionnaire 3 and 17).

In second place among the variants of behavioral characteristics, a disorder of adaptive reactions was noted, which, according to the survey, amounted to 42.8%. The most frequent manifestations were rapid fatigue with the inability to complete the task (88% of the number of signs in the questionnaire-1 and 19), as well as low initiative with unwillingness to perform new work in 58% of observations (the number of signs in the questionnaire-18).

This variant of the identified signs reflects the state of internal tension and emotional imbalance, hinders the productivity of the educational process and adaptation to changes in various situations. The disorder of adaptive reactions has various manifestations, but, according to the data presented above, for primary school age, the most characteristic signs of asthenia, apathy, inertia in behavior.

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The third variant of the behavioral response was anxiety, which occurred in 25.8% of the data obtained (the number of features in the questionnaire was 14). At the same time, the main features noted by parents were passivity when completing tasks in 58% of cases (the number of signs in the questionnaire-19), as well as stiffness when doing homework in 28% of schoolchildren (the number of signs in the questionnaire-4), sleep disturbances in the form night fears and difficulty falling asleep, 20% each, respectively (sign numbers in the questionnaire-13 and 14). Of particular note is the information in the questionnaires about sleep disorders, which, as is known, not only lead to a decrease in daytime well-being, emotional mood and performance, but can form additional behavioral problems, affect school performance and are associated with an increased risk of developing somatic pathology. The appearance of these symptoms deserves special attention from parents and in some cases requires specialist advice.

The fourth variant of personality characteristics was characterized by increased excitability and was detected in 20.6% of cases. The predominant manifestations of this variant were increased anxiety with frequent disorders - 40%, tearfulness - 24% (numbers of signs in the questionnaire-16 and 24). These manifestations and excessive excitability, combined with irritability, are often due to high responsibility, workload, relationships with classmates and teachers, and the atmosphere in the classroom. These reasons should be leveled, and according to indications, medical correction should be considered.

The fifth (last) variant of behavioral features was designated intentionally, since it is focused on signs characterizing the dysfunction of the autonomic nervous system and was noted in 15.5% of the responses to the survey. Parents paid attention to the following signs: a tendency to redden the face in an unfamiliar environment - 26%, excessive sweating during excitement, as well as frequent cold snaps and wet extremities - 16% each, a tendency to unstable stools - 8% of the observation (numbers of characters in the questionnaire - 9, 10 and 11). These manifestations may indicate violations of autonomic regulation as a result of functional changes in the ANS. In this regard, these symptoms cannot be fully considered as behavioral features. According to the literature, an imbalance in the vegetative status can initiate disturbances in the activity of internal organs (cardiovascular system, gastrointestinal tract, respiratory organs, endocrine glands, etc.) and is one of the most common pathological conditions in children with a prevalence among schoolchildren of up to 40 - 60%. Often, vegetative-visceral symptoms are a natural reflection of an anxiety state accompanied by neurotic disorders and serve as a reason to consult a doctor. At the same time, behavioral characteristics and emotional tension are not eliminated.

Medical therapy can be an effective way to solve the problem. Drug therapy in childhood may be preceded by measures aimed at eliminating psycho-traumatic situations, correcting personality traits, and educating the child to adequately respond to external influences. According to various authors, physiotherapeutic techniques (massage, reflexology, water procedures, etc.) can be useful. With insufficient effectiveness of the above measures, it is advisable to consider the issue of prescribing drugs [14].

# Conclusion

The study of the level of anxiety among younger schoolchildren according to parental surveys showed that out of 70 observations, in 50 cases (71.4%), personal characteristics of children were noted, which made it possible to identify 5 variants of behavioral disorders, of which irritability (44.5%) prevailed, violations adaptive reactions (42.8%) and increased excitability (20.4%).

The approach used (survey of parents) made it possible to identify a group of children with increased anxiety, which was not previously established and, accordingly, was not considered as a borderline condition that requires close attention due to the high risk of developing an anxiety-neurotic disorder that negatively affects the child's intellectual development and somatic well-being. Children of primary school age with manifestations of vegetative symptoms in combination with increased anxiety deserve special attention, which significantly increases the risk of developing functional disorders of various organs and systems. The continuation of this study involves a dynamic assessment of the effectiveness of anxiolytic therapy (in accordance with the indications for prescribing) with a discussion of the results of therapy.

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