

Early Diagnosis of Anxiety in Children of Primary School Age

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Abstract:

Children's anxiety and the possibility of timely correction in case of early manifestations of this condition are among the urgent tasks of ensuring the health of children, since timely solution of the problem in preschool and primary school age can prevent the accumulation of negative emotional experience and prevent the development of unwanted personality traits in the future. Children's anxiety refers to the individual psychological characteristics of the child, which, unfortunately, are not always noted in a timely manner by the adult environment of the child. The approach used (surveying parents) made it possible to identify a group of children with increased anxiety, which was not previously considered as a borderline condition that requires close attention due to the high risk of developing an anxious-neurotic personality type, a negative impact on the intellectual development of the child and somatic well-being. It was found that out of 70 examined children of primary school age, in 50 cases (71.4%), personality traits were noted, which made it possible to identify 5 behavioral options. At the same time, the predominant types were irritability (44.5%), disorders of adaptive reactions (42.8%) and increased excitability (20.4%) ($p < 0.05$).

Key words: children; health of schoolchildren; behavioral disorders; anxiety in childhood

Introduction

Primary school education is the foundation for providing further teaching. During this period, the child develops the foundations of his personality, builds relationships with adults and peers, and also establishes attitudes toward future activities and the requirements of parents and teachers.

Interest in the problem of personal anxiety in children is confirmed by numerous scientific publications, in which specialists are particularly concerned about the process of developing anxiety states in school conditions [1, 6, 11].

According to the World Health Organization, school is considered a socially significant factor in the development of maladjustment in students, because Primary school education for a child is associated with certain difficulties (new social contacts, problems of adaptation, demands of parents and teachers for the success of educational activities, etc.), which lead to worries, depressed mood, uncertainty, indecision and fears [3].

Anxiety in the general understanding refers to subjective manifestations of personal distress and is considered as an experience of emotional discomfort, a premonition of an unpleasant situation or danger. The difficulty is that anxiety can become a stable personal characteristic with confrontation in relation to real possibilities, and a subsequent impact on emotional well-being, a sense of confidence, security, etc. [5, 9].

Currently, there are studies showing that anxiety, originating in childhood, under unfavorable circumstances, becomes a stable set of habits and preferences, mental attitude and a set of psychophysical

characteristics that determine everyday behavior. Risks of developing anxiety may appear already in preschool and primary school age [2, 7].

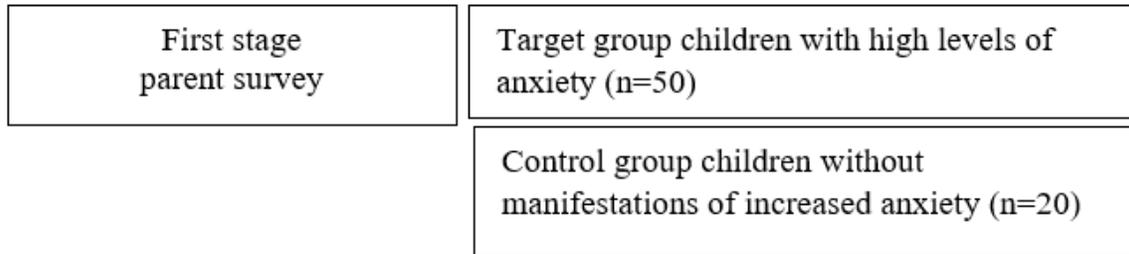
A number of studies confirm that the number of children characterized by increased anxiety, uncertainty, and emotional instability is increasing. The consolidation and strengthening of anxiety occurs through the mechanism of a "vicious psychological circle", leading to the accumulation of negative emotional experience, which generates negative prognostic assessments, determines the attitude towards external factors and contributes to the maintenance of anxiety. The experience of disadvantage in a school environment is designated differently: "school neurosis", "school phobia", "didactogeny", "didactogenic neuroses". Each of the definitions indicates a different state of schoolchildren, but they all lead to emotional instability and maladjustment [4, 12, 13].

The paper uses the term "behavioral and psychological disorders" as a convenient descriptive concept that does not consider pathogenetic and psychodynamic mechanisms, but indicates a distinctive variability of behavior (excitement, hyperactivity, psychomotor retardation), which, in accordance with WHO recommendations, may imply impaired psychological functioning and decreased productivity when performing a social role (schooling, interaction with peers and parents, etc.). In other words, we are talking about disadvantaged characteristics of childhood, which are characterized by the originality of emotional reactions. This approach does not contradict the general rules of ICD-10, does not imply

a specific nosology, but is of interest for assessing behavior, dynamic observation and deciding on the need for corrective measures.

PURPOSE OF THE STUDY: Based on the results of a parent survey, assess the level and severity of school anxiety in primary school pupils.

Organization and Methods of Research



The study design included 2 stages:

The formation of the target group was carried out based on the results of a survey of parents of 70 children of primary school age (grades 1-4) using the methodology of Lavrentyeva G.P., Titarenko T.M. (1992); This questionnaire is intended to determine the level of anxiety in children of a specified age [10]. The questionnaire includes 20 statement questions (a positive answer to each proposed statement is worth 1 point), followed by calculation of the total points, on the basis of which a conclusion was made about the child's anxiety level. The assessment of the main indicators of the study included the results of the following data:

- high level of anxiety: 15 - 20 points;
- average level of anxiety: 7 - 14 points;
- low level of anxiety: 1 - 6 points.

From among the children who, in the opinion of their parents, had an increased level of anxiety, 5 subgroups of schoolchildren with various types of behavioral disorders were formed, which served as the basis for subsequent observation.

Statistical processing was performed using the STATISTIKA 6.0 application package. For all data, absolute indicators and percentages characterizing the proportion of children with a certain characteristic, median (Me), and quartile intervals (Q1-Q3) were calculated.

To achieve this goal and based on the hypothesis of a high level of anxiety in children at the stage of primary school education, an initial target sample of children was formed. The selection was carried out using a continuous method based on behavioral disorders noted by parents, for subsequent comparison of the data obtained in the target and control groups. An observational study with a prospective assessment of the results was carried out in a standard school in Krasnoyarsk.

Comparison of qualitative characteristics was carried out by calculating differences using the Z-test according to V.Yu. Urbach with clarification of differences in samples and the value of dispersion [14]

This study was approved by the ethics committee of the Federal State Budgetary Educational Institution of Higher Education Krasnoyarsk State Medical University named after Professor V.F. Voino-Yasenetsky Ministry of Health of the Russian Federation (protocol No. 58 of February 10, 2020). The studies were carried out after the child's legal representatives signed the informed consent. The study was carried out without financial support.

Research Results and Discussion

At the first stage, an assessment of the survey data obtained from the parents of the study made it possible to form a target group for follow-up, which included 50 children with high and average levels of anxiety. The control group consisted of 20 schoolchildren with stable behavioral characteristics as determined by their parents.

Subsequent assessment of anxiety was carried out in subgroups formed on the basis of the identified main (leading) behavioral disorders indicated in table 1

Options for main (leading) violations	Numbers of questionnaire questions (signs) with positive answers	Target group		Control	
		Number of features	% of all signs	Number of features	% of all signs
Irritability	2,3,17,24	22	44,5	3	15*
Adjustment disorders. reactions	1,5,12,14,18	21	42,8	3	15*
Anxiety	4,8,13,18	13	25,6	2	10
Increased excitability	6,13,14,15,16	10	20,4	0	0*
Autonomic disorders		8	15,5	2	10

Note: * statistically significant differences between two samples (z-test) at $p < 0.05$

Table 1. Variants of the main (leading) behavioral disorders in primary school students, identified using a questionnaire for parents according to the method of Lavrentyeva G.P., Titarenko T.M.

The first variant of the main disorders (subgroup 1) with increased irritability was recorded with the highest frequency - 44.5% and for all characteristics statistically significantly prevailed compared to the control group ($p < 0.05$). It is known that increased irritability in a child is a certain state of the nervous system, which is manifested by excessive sensitivity to external stimuli, regardless of the reasons. Unfortunately, in everyday conditions, parents and the child's environment do not always pay attention to such behavioral features. However, the correction of these disorders requires the elimination of irritating factors. According to our data, parents most frequently noted excessive anxiety in response to any task and poor tolerance of waiting (impatience), which were recorded in

64% and 68% of responses, respectively (sign numbers in the questionnaire - 3 and 17).

The second variant of the main disorders (subgroup 2) with a disorder of adaptive reactions was established in 42.8%. The most common signs were indications of rapid fatigue with the inability to complete the assigned task (88% of the number of signs in the questionnaire - 1 and 19), and low initiative with reluctance to perform new work in 58% of observations (number of signs in the questionnaire - 18). The most frequent were indications of rapid fatigue with the inability to complete the assigned task (88% of the number of signs in the questionnaire - 1 and 19), and low initiative with reluctance to perform new work in 58% of observations (number of signs in the questionnaire - 18). This variant of

the identified features reflects the state of internal stress and emotional disorder, hinders the productivity of the educational process and adaptation. The third option of behavioral response included anxiety, identified in 25.8% of the data obtained (the number of signs in the questionnaire was 14). At the same time, the main features noted by parents were passivity in completing tasks and instructions in 58% of cases (sign number in the questionnaire - 19), as well as stiffness and tightness when doing homework assignments in 28% of students (sign number in the questionnaire - 4), sleep disturbances in the form of night fears and difficulties in falling asleep, 20% each, respectively (sign numbers in the questionnaire - 13 and 14). Special attention should be paid to questionnaire references to sleep disorders, which, as is known, not only lead to a deterioration in daytime well-being, emotional mood and performance, but can create additional behavioral problems, affect school performance and are associated with an increasing risk of developing somatic pathology. The appearance of these symptoms deserves special attention from parents and, in some cases, requires consultation with specialists.

The fourth variant of personal characteristics was characterized by increased excitability and was identified in 20.6% of cases. The predominant manifestations of this variant were increased anxiety with frequent grief - 40%, tearfulness - 24% (sign numbers in the questionnaire - 16 and 24). These manifestations and excessive experiences combined with irritability are often due to high responsibility, academic workload, relationships with classmates and teachers, and a difficult atmosphere in the classroom. These reasons should be neutralized.

The fifth variant of the main disorders is focused on signs characterizing autonomic dysfunction, and was noted in 15.5% of responses to the survey. Parents paid attention to the following signs: a tendency to flush the face in an unfamiliar environment - 26%, increased sweating when excited, as well as often cold and wet extremities - 16% each, and a tendency to have unstable stools - 8% of observations (sign numbers in the questionnaire - 9, 10 and 11). These manifestations may indicate disturbances in autonomic regulation as a result of functional changes in the ANS. The established symptoms cannot be fully considered as behavioral disorders. According to the literature, an imbalance of vegetative status can initiate disorders of the internal organs (cardiovascular system, gastrointestinal tract, respiratory organs, endocrine glands, etc.) and is one of the most common pathological conditions in children and adolescents with a prevalence among schoolchildren up to 40-60%. Often, vegetative-visceral symptoms are accompanied by neurotic disorders and serve as a reason to consult a doctor. At the same time, behavioral disorders and emotional tension are underestimated, and the traumatic situation is not eliminated.

The approach used (questioning of parents) made it possible to identify a group of children with increased anxiety, which had not been identified previously and, accordingly, in the group of schoolchildren under consideration was not assessed as a borderline condition requiring close attention due to the high risk of developing an anxious-neurotic personality type, negative influence on the child's intellectual development and somatic well-being.

Conclusion

The approach used, based on a survey of parents, revealed a group of children with increased anxiety, which had not previously been noted by others and, accordingly, was not considered as a borderline condition requiring close attention due to the high risk of developing an anxious-neurotic personality type, a negative impact on intellectual development child and somatic well-being.

Among elementary school students, in 71.4% of observations, personal characteristics were noted that made it possible to identify 5 variants of behavioral disorders. At the same time, the predominant types of behavior were irritability (44.5%), disorders of adaptive reactions (42.8%) and increased excitability (20.4%).

Children of primary school age with manifestations of vegetative symptoms against a background of increased anxiety, which significantly increase the risk of developing functional disorders of various organs and systems, deserve special medical supervision

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