

## Borderline Mental Disorders in Adolescent Students: Epidemiology, Dynamics, The Basics of Mental Hygiene

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### ABSTRACT

*The aim of the study was to study the characteristics of the prevalence, dynamics and pathomorphism of borderline mental pathology in students of adolescence and youth. Research methods - clinical examination, longitudinal monitoring and retrospective analysis. With the participation of a psychiatrist, on the basis of informed consent, 1,300 adolescents aged 15-19 years were examined between 1986 -2019. According to a 2018-2019 study, a high prevalence of boundary mental pathology is provided in article. Frequency of occurrence of violations was 67%. Data on high prevalence of boundary mental pathology are provided in article. Frequency of occurrence of violations was 67%. Data from a retrospective study showing a pronounced increase in the prevalence of neurosis are presented. The results of a comparative longitudinal study prove a more favorable course of pre-painful mental disorders in adolescence (16-17 years old) than among students 18-19 years old. The pathomorphism of the clinical significance of a number of behavioral deviations in the historical interval of 40 years is described. Based on the studies, the basic principles of psychoprophylaxis in students of adolescents are formulated.*

### Keywords

Adolescents, Borderline mental disorders, Epidemiology, Psychohygiene, Prevention.

At the turn of the 20th and 21st centuries, mankind was faced with new challenges that caused various forms of psycho-social maladaptation of significant groups of the population. The most defenseless are children and adolescents [1,2]. Topical reasons for studying the state of mental health of students of adolescents are the following:

A sharp increase in the prevalence of borderline mental disorders and behavioral disorders; Hypo diagnostics of mental pathology; The critical importance of adolescence in relation to the formation

of an adult personality; Exceptional social significance of the problems of mental.

For almost 30 years, Russia has been one of the leading places in Europe for child and adolescent suicides. The critical level of teenage suicides for the state is determined by WHO at 23 per 100,000. There are regions in Russia where this indicator is 120 or more per 100,000. For example, Buryatia, Khakassia, Yakutia. Moreover, in recent years there has been a tendency to extended suicides, when 2, 3 or more adolescents together die from life. Despite numerous psychoprophylactic programs, it is still not possible to overcome the negative trend [3].

In recent decades, educators and age psychologists have noted a sharp increase in aggressive forms of behavior among young

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people. Sports matches turn into fierce battles between fans of various clubs. Clashes between teenage groups with different political preferences and xenophobic manifestations are of concern. Numerous informal groups with "autonomous morality" arise based on a strongly expressed teenage grouping reaction with peers. In the eastern regions of the country, youth associations function openly propagating criminal morality, for example, AUE "Арестантский Уклад Един" (The Prisoner of Life is One) [4].

The number of acute conflicts in the "contact zone" has significantly increased - between teachers and students and within the family, acquiring extreme forms - beating and killing.

In a number of cases, the specific teenage emancipation reaction reaches the degree of non-conformism and takes the form of an open challenge to religious morality and, in particular, to the Russian Orthodox Church [5].

In recent years, new forms of "risky behaviors" have emerged, unfortunately, with tragic, lethal consequences. Zatseping - riding on the roofs of commuter trains and in the subway; jumping - bungee jumping; rouffing - walks on the roofs; extreme selfie etc.

In modern adolescents, there is a significant increase in disorders of the neurotic circle, in particular dysmorphomaniac disorders. These forms are represented by piercings, tattoos, a persistent desire for a change in appearance, as well as neurotic anorexia [6].

Underestimated is the critical increase in information load in recent decades. The uncontrolled use of numerous gadgets and a computer leads to the formation of new forms of information addiction - Internet addiction, gaming addiction, computer addiction, etc.

Some experts note the connection of information load with an increase not only in borderline mental pathology, but also in diseases such as schizophrenia. According to the long-term observational studies of our institute, 11-15% of the examined adolescents need a psychotherapist. More than 50% of students find "pre-painful mental conditions".

### **Purpose**

To study the characteristics of the prevalence, dynamics and pathomorphism of borderline mental pathology in students of adolescence and youth.

### **Tasks:**

1. The study of age-related characteristics of prevalence indicators and the structure of borderline mental pathology in students of adolescence and youth;
2. A study of the prognostic value of various forms of borderline mental pathology in adolescents;
3. The study of the dynamics of epidemiological indicators of borderline mental pathology of varying severity, pathomorphism of their manifestations in the historical interval of 16 years

4. Development of the basics of psychohygiene and psychoprophylaxis in students of adolescence and youth.

Methods and object of study: With the participation of a psychiatrist, on the basis of informed consent, 1,300 adolescents aged 15-19 years were examined between 1986 -2019 годы.

The dynamics of the epidemiological indicators of various forms of mental maladaptation in the interval of 16 years is analyzed. Studied the conditions and organization of their training, lifestyle. These studies are conducted in Russia in the interval of 40 years.

Under the existing fundamental contradictions regarding the classification of mental disorders and the need to adhere to a unified diagnostic approach, prospective and retrospective observational studies used a systematics that takes into account both the syndromic outline of diagnosed conditions and their etiopathogenesis in the framework of the nosological trend in psychiatry, traditional for Russia and German-speaking countries.

In cases of a predominant psychogenic effect in the occurrence of disorders, the concept of neurosis or reaction was used, in the presence of pronounced exogenous factors or somatogeny, the concept of "neurosis-like or psychopathic disorder" was used. This approach is extremely important in the development of treatment and prevention programs.

Syndrome-defined states falling under the criteria for mental disorders ICD-10 were distinguished by severity. Pre-painful conditions are understood as monosymptomatic, stereotypical forms of disorders that occur 1 or more times a week without a pronounced social maladaptation, but disturbing the patient.

In adolescence, they should be considered as adaptation reactions. The selected groups were correlated with ICD 10. The distinction between mental disorders in terms of their severity allows us to determine the competencies of specialists in their prevention and correction. Pre-painful conditions can be corrected by psychological and pedagogical methods, and syndromic states are the competence of a specialist physician.

According to the long-term observational studies of our institute, 11-15% of examined adolescents need a consultation with a psychotherapist. More than 50% of students find "pre-painful mental conditions." Data from a comparative study of teenage contingents of schools and colleges 2017-2019 (200 observations) presented in table 1.

From the above data it follows that the overall prevalence of borderline mental disorders in adolescents in schools and colleges was 67%. It should be noted that syndromically outlined forms were diagnosed in 31% of cases, and 36% of the examined showed pre-painful disorders [7;8]. It should be noted that in adolescents with clinical forms of borderline mental disorders, less than 2% were previously consulted by a psychotherapist or neurologist.

## Prevalence of Border Mental Disorders in the surveyed contingents of studying schools and colleges study 2017-2019

	Forms of disorders	Schools (100)				Colleges (100)			Total:	
		aбс	P1	m1	p	aбс	P2	m2	aбс.	P3
	<i>Neurotic circle disorders</i>									
1	<b>Neurotic reactions</b>	18	18,00	3,84	> 0,05	20	20,00	4,00	38	19,0
2	<b>Neurosis</b>	18	18,00	3,84	> 0,05	22	22,00	4,14	40	20,0
3	<b>Neurosis-like conditions</b>	0	0	0,00	-	4	4,00	-	4	2,00
	<i>Pathological disorders</i>									
4	<b>Pathological reactions</b>	13	13,00	3,36	< 0,05	27	27,00	4,44	40	20,0
5	<b>Personality Disorders</b>	4	4,00	1,96	> 0,05	5	5,00	2,18	9	4,50
6	<b>Psychopathic conditions</b>	0	0	0,00	-	4	4,00	-	4	2,00
	<b>Total:</b>	<b>53</b>	<b>53,00</b>	<b>4,99</b>	<b>&lt; 0,01</b>	<b>82</b>	<b>82,00</b>	<b>3,84</b>	<b>135</b>	<b>67,5</b>

**Table 1**

"Iceberg morbidity" exceeds 90%. Thus, the vast majority of students who need the help of a doctor are outside the field of vision of a specialist. In this situation, the qualification of a school nurse plays an exceptional role in the early diagnosis of borderline mental disorders in students.

A comparative analysis of the dynamics of indicators of individual forms of borderline mental disorders in the historical interval of 16 years is presented in a diagram.

From the presented graph it follows that the negative dynamics in the state of mental health of adolescents in the range of 16 years occurred due to a sharp increase in neurosis from 5% to 20%, as well as the number of pathological reactions - behavioral disorders from 12% to 20%. At the same time, the prevalence of neurotic reactions sharply decreased from 40% to 16%. That is, at the present stage, the transformation of pre-painful neurotic disorders into more pronounced forms of disorders - neurosis and behavioral deviation.

The study of the pathomorphism of clinical manifestations in adolescents in the interval 1987-2019 revealed the following features. In the 80s of the twentieth century, pronounced deviations in sexual behavior (early onset of sexual activity, promiscuity, voyeurism etc.) have always been combined either with a delay in intellectual development or with abnormal personality traits of a predominantly hysterical or excitable type. In 2016-2018 the frequency of occurrence of these behavioral phenomena has increased sharply (up to 30% in a metropolis). Teenagers were fully adapted at school and college and their mental state was

not combined with general social maladaptation, personality and neurotic disorders. This allowed us to conclude that the obtained results of clinical observations indicate a variable diagnostic value of individual forms of deviant behavior in different historical social conditions.

Analysis of the dynamics of the prevalence of borderline mental pathology in various age groups - teenagers aged 15-16 years were compared and university students aged 18-19 years showed a sharp decrease in indicators from 47% to 23%. Positive changes occur due to a critical reduction in the incidence of pre-pain conditions. Longitudinal tracking of groups of adolescents and youths for 1 year detecting pre-pain disorders showed that in adolescents these conditions are transformed into a pronounced mental disorder in 10% of cases. In persons aged 18-19 years, this figure reached 60%. It can be assumed that the revealed changes are due mainly to biological reasons, in particular, fundamentally different prognostic values have a positive puberty phase. So, in adolescence, pre-painful disorders are mainly a manifestation of an age-old adaptation reaction, and in burdens this is a stage in the development of a mental disorder (mainly neurosis). These age-specific features should be considered when organizing primary and secondary psychoprophylaxis.

One of the main problems in organizing interdisciplinary research and prevention programs is the fundamental difference in understanding of the mental representatives of various disciplines, directions and schools. The present study was conducted from a scientific standpoint that approach treats a person as an open, self-regulating bio-psycho-social system functioning according to

the principle of Bertalanffy equifilability [7;9]. The principle of equifilability affirm: Any changes in one of the subsystems always lead to changes in all other subsystems, ensuring the integrity and optimum functioning of the entire system. Based on a systematic approach, we naturally come to the conclusion that Child-family-educational institution - society as a whole should be considered as a single, open system. The leading indicator of the effectiveness of psychoprophylaxis is achievement of a state of mental well-being. A systematic approach underlies the diagnosis of various forms of mental disorders, taking into account their etiopathogenesis and the development of psychoprophylactic programs.

The experience of many years of research has allowed us to propose a definition of the concept of "Psychohygiene": «Mental hygiene as the science of preservation and strengthening mental health». We also formulated the basic principles of the organization of primary and secondary psychoprophylaxis in children and adolescents:

#### I- MULTI-LEVEL

- Macrosocial
- Microsocial
- Individual (person-centered)

#### II- MULTIDISCIPLINARY approach

#### III- COORDINATING AND LEADING ROLE OF PUBLIC HEALTH

#### IV- CONTINUITY TAKING INTO ACCOUNT AGE SPECIFICS

In the study of recent years, we have described the phenomenon of social psychiatrophobia – «Expressed fear of parents, a significant part of teachers, young people before the possibility of psychiatric stigma and extremely adverse social consequences». Fear is based on the belief that modern society is opposed to the individual, is a threat to her. This position leads to an extremely low appeal of parents and adolescents to psychiatrists.

The revealed phenomenon made it possible to formulate the principle of confidentiality: When organizing any systems of secondary psychoprevention of children, adolescents and youth in Russia at the present stage, it is necessary to create structural units that ensure complete confidentiality of patients seeking help and their legal representatives.

Thus, it was revealed that borderline mental disorders of varying severity are found in the examined population with a high frequency and have a distinct increase in the historical interval of 15 years. It was established that pre-painful mental disorders have an unfavorable prognosis in young people (18-19 years old). The expressed pathomorphism of clinical manifestations of borderline mental disorders in the historical interval of 40 years and the variable diagnostic value of individual forms of deviant behavior

are revealed. The principles of the organization of primary and secondary psychoprophylaxis in adolescents are proposed

The above allows us to draw the following most generalized conclusions:

- The state of mental health of modern adolescents requires comprehensive, interdisciplinary, observational studies.
- The implementation of the proposed measures for primary and secondary psychoprevention requires priority state funding and a significant increase in psychiatric training of teachers, age psychologists and school nurses.
- The priority tasks of interdisciplinary interaction is the development of a unified conceptual apparatus and the development of comprehensive measures of psychoprevention of adolescents.

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