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**MENTAL DISORDERS IN CHILDREN IN THE SARATOV
REGION IN 2000–2020**Yulia B. Baryl'nik (a), Natal'a V. Filippova (b)*, Yulia S. Abrosimova (c),
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sve-pakhomova@yandex.ru**Abstract**

The relevance of this study is due to the high incidence of mental disorders in children and adolescents and adolescence in the Russian Federation, even taking into account the incompleteness of official epidemiological data. Materials and research methods. An epidemiological study of the general and primary morbidity of mental disorders among children and adolescents in the Saratov region for the period 2000–2020 was carried out. according to statistical data of reporting forms № 10 and 36. Research results. Throughout the entire period under consideration, there is an excess of indicators of both general and primary morbidity in children and adolescents of similar indicators among the adult population of the region. The negative dynamics of the population was also noted, especially expressed in the adolescent population. Conclusion. High rates of general and primary morbidity in the children and adolescent population on the territory of the Saratov region may be due to both a decrease in the number of children and adolescents and an untimely diagnosis of mental disorders in childhood and adolescence. The epidemiological data obtained as a result of the analysis indicate the need to improve the system of prevention and active detection of mental disorders at the earliest stages of the disease, as well as to carry out measures to destigmatize mental illness and psychiatric care among the population.

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1. Introduction

The highest rates of general morbidity of mental disorders in the Russian Federation in recent decades have been observed in children and adolescents and make up from 3.0 to 5.5 % of the population of these age groups, which deserves special attention to the organization and development of mental health services for children and adolescents both at the federal and regional levels (Churkin & Khodyreva, 2011; Demcheva & Kalinina, 2010; Filippova et al., 2017; Makushkin et al., 2010, 2013). Along with this, according to a number of researchers, the statistical data taken into account do not reflect the full picture of the incidence rate, since not all families with a child with a mental disorder seek specialized medical care; most reasons for consulting a psychiatrist are situations of extreme severity of painful manifestations (Churkin & Khodyreva, 2011; Demcheva & Kalinina, 2010; Filippova et al., 2017; Makushkin et al., 2010, 2013). Moreover, in many cases, parents, guardians, or teachers of a child with developmental and behavioral problems initially seek help from school psychologists, speech pathologists, or neurologists. And only a small percentage of these requests are later reoriented by these specialists to psychiatrists. Thus, traditionally, there is a shift in emphasis in the provision of specialized care from the field of psychiatry to psychology, neurology or defectology. Accordingly, psychiatric care is provided to a child at the early stages of the disease either extremely insufficiently, or not always by specialized professionals (Churkin & Khodyreva, 2011; Filippova et al., 2017), which is a serious medical and social problem.

2. Problem Statement

The high incidence of mental disorders in the children and adolescent population in Russian Federation deserves close attention to the state of mental health of children and adolescents from the state and society

3. Research Questions

The highest rates of general morbidity with mental disorders in the Russian Federation in recent decades have been observed in children and adolescents.

The general and primary incidence of mental disorders among children and adolescents in Russia as a whole and in certain regions of the country (particularly, in the Saratov region), registered using statistical registration forms, does not reflect the true epidemiological picture, since not all parents or trustees of a child with mental health problems seek for specialized care due to fear of stigmatization of a psychiatric diagnosis.

At the present time, organizational problems related to the protection of the mental health of children and adolescents seem to be extremely important. The socio-economic and political situation in the country over the past decades has a significant impact primarily on the health status of children and adolescents, which may be due to many factors.

4. Purpose of the Study

The research is aimed at epidemiological analysis of the general and primary incidence of mental disorders in the child and adolescent population of the Saratov region and the number of children and adolescents in comparison with similar indicators in adults for the period from 2000 to 2020.

5. Research Methods

Within the framework of this study, the analysis of statistical data of reporting forms No. 10 “Information on Mental and Behavioral Disorders” and No. 36 “Information on the Contingents of Mentally Ill Patients” was carried out, reflecting the objectively recorded incidence of mental disorders in the population of the Saratov region for 2000–2020. The main methods used were: epidemiological, demographic and mathematical-statistical. The indicators of the general and primary morbidity of mental disorders in the child and adolescent population of the region were assessed in comparison with similar indicators for the adult population, as well as the number of children and adolescents during the study period.

6. Findings

The epidemiological study of the incidence of mental disorders in children and adolescents suggests significant differences in the values of morbidity indicators and their dynamics, depending on the age group, the time period during which statistical data were obtained, and the numbers in which the incidence is expressed – absolute or relative (Makushkin et al., 2013).

Throughout the entire studied period, the indicators of both the general and primary morbidity of children and adolescents exceeded similar indicators among the adult population of the region, which is consistent with the epidemiological data for Russia as a whole, presented in the study of Makushkin et al. (2013).

Thus, the indicators of general child morbidity in the Saratov region during the study period exceeded adult morbidity by 18.7–56.6 %, and adolescent morbidity by 82.3–120.2 %, depending on the year in question. It should be noted that over the 20-year period of the analysis in the region, there is a decrease in the population of all age groups, but in the children, and especially in the adolescent population, this negative dynamic is most pronounced: the growth rate in the adult population is – 6.31 %, in the child and adolescent populations is –19.76 % and –46.56 %, respectively.

An equally important feature of the morbidity of the age groups under consideration is the ambiguity of the dynamics, expressed both in absolute numbers and in the indicator per 100 thousand children and adolescents. Thus, in the Saratov region, the absolute incidence rates of mental disorders in children aged 0-14 years have consistently decreased throughout the study period (from 16,193 in 2000 to 15,513 in 2020), i.e. the total incidence in the child population region over 20 years has decreased by 4.2 %. At the same time, in intensive indicators, calculated per 100 thousand of the population, there was an increase in the incidence among children until 2007 (from 3,403.6 to 3,845.9), i.e., the growth rate was 1.73 % over this 8-year period. Since 2008, there has been a consistent decrease in this indicator to

3,078.1 per 100 thousand of the child population in 2018. In 2019–2020, the total incidence of mental disorders in absolute terms began to grow again and amounted to 4,063.7 per 100 thousand children in the region in 2020. Thus, during the study period the absolute indicators of the total child morbidity of mental disorders increased by 19.39 %, exceeding the same indicator in the adult population of the region by 2.81 %.

In the adolescent population (15–17 years old) of the Saratov region during the study period, the total incidence of mental disorders in absolute numbers gradually decreased from 5,826 in 2000 to 3,607 in 2014 (the growth rate was –38.09 %), while in terms of per 100 thousand population from 2000 to 2010 there was an increase in this indicator from 4,484.4 to 5,464.8 (the growth rate is 18.06 %). In 2011, the adolescent incidence of mental disorders in the region, calculated per 100 thousand population, decreased to 5,093.6 (by 6.8 %), then increased in 2013 to 5,326.6 (by 4.57 %) In 2014, this indicator again slightly decreased to 5,294.3 (by 0.6 %), in 2015 it increased to 5,497.8 (the growth rate was 3.7 %), and in 2016 it again decreased to 5,021.4 (growth rate –8.66 %). In 2017–2019 there was a systematic increase in the absolute incidence of mental disorders in the adolescent population of the region to 5,577.4 (by 11.1 %), and only in 2020 this figure again slightly decreased to 5,323.8 (by 4.6 %). When compared with a similar indicator for the adult population of the region, the total growth rate of the overall incidence of mental disorders among adolescents per 100 thousand of population exceeds it by 1.14 %.

The observed pattern of morbidity dynamics among children and adolescents in the Saratov region, as well as in Russia as a whole, is largely determined by the demographic situation with negative dynamics of the population of the studied age groups both in the whole country and in its individual regions. So, in the Russian Federation from 2000 to 2012, the child population decreased by 15.04 % (from 26,139,179 to 22,207,236), and the number of teenagers – by 42.38 % (from 7,480,068 to 4,310,219). It is noted that if the number of children, starting from 2008 in Russia, increases, then the number of adolescents in the population decreases until 2012. At the same time, the rate of decline in the adolescent population is significantly ahead (by 27.34 %) the rate of decline in the total number of mentally ill adolescents, which is one of the significant reasons for the increase in the “density” or frequency of occurrence of sick adolescents among the population of this age group (Makushkin et al., 2013).

In the Saratov region, over the period of the study (from 2000 to 2020), there are tendencies similar to the all-Russian tendencies of a decrease in the number of children and adolescents, but they are expressed to a much greater extent. Thus, the number of children in the Saratov region in 2000 was 475,761, and in 2020 – 381,748, i.e. a decrease of 19.76 % was registered, which exceeds the all-Russian indicators. The decline in the number of the adolescent population of the region has even more pronounced negative trends both in comparison with the same indicator in the child population, and with the indicators for Russia, amounting to –25.78 % (from 129,917 in 2000 to 69,424 in 2020) and leading to an even more significant increase in the frequency of mental pathology in the adolescent population of the region.

The picture of the dynamics of the primary morbidity of children and adolescents living in the Saratov region over the 20-year period of the analysis differs from the picture of the general morbidity.

Thus, in the Saratov region, the primary morbidity of children in absolute values decreased from 2,999 in 2000 to 1,357 in 2020 (the growth rate was -54.75%), and in terms of 100 thousand population – from 630.4 to 355.5 (the growth rate -43.61%). The decline in primary childhood morbidity rates, both in absolute and intensive indicators, was observed from 2000 to 2001, from 2002 to 2008, from 2009 to 2012, from 2013 to 2014 and from 2015 to 2020, while in 2002, 2009, 2013 and 2015, there was an increase in these indicators compared to the previous year. In the adolescent population, the primary incidence also decreased during the study period from 772 to 210 in absolute values (growth rate -72.8%) and from 594.2 to 302.5 in indicators per 100 thousand population (growth rate -49.1%). At the same time, from 2000 to 2006, from 2013 to 2014 and from 2017 to 2020, both indicators progressively decreased, and in 2007–2008, 2013 and 2015, there was an increase in primary morbidity in both absolute and relative values.

Indicators of both general and primary morbidity of mental disorders among children and adolescents in the Saratov region significantly exceed similar indicators in the adult population. Thus, the primary morbidity of children in the region in 2000 exceeded the same indicator for the adult population by 95.47% , and in 2020 by 33.03% ; the primary morbidity of adolescents in 2000 was higher than that of adults by 84.26% , and in 2020 by 13.2% .

It should be noted that over the 20-year period of the analysis, the dynamics of indicators of both general and primary morbidity of mental disorders in the child and adolescent population of the Saratov region, as well as in Russia as a whole (Makushkin et al., 2013), has significant fluctuations from year to year, especially noticeable since 2013. A number of factors can underlie such inequality of indicators. So, on the one hand, psychiatrists note the growth of public confidence in the psychiatric service, as a result of which, in some regions, the use of specialized care is increasing. However, in other settlements, the incidence and morbidity rates of mental disorders in childhood and adolescence are traditionally low, which, apparently, is due to socio-cultural characteristics and ancestral traditions, according to which the family of a sick child only in the most extreme cases turns to a psychiatrist, already to address the issue of disability. The growth of primary morbidity indicators, according to the data of the health organization structures, is determined by the degree of development of the network of outpatient services, psychiatric offices in pediatric polyclinics, the work of specialists in brigade methods in remote regions and rural areas, as well as the active appeal of parents (guardians) with pronounced problems of development and behavior of the child. In this regard, with the entry into force of the Order of the Ministry of Health of Russia dated December 21, 2012 No. 1346 n “The procedure for undergoing medical examinations by minors, including upon admission to educational institutions and during the period of study in them”, along with an increase in the volume of medical care (preventive examinations) one should expect a dynamic increase in the primary morbidity rates for mental disorders, predominantly of the borderline (non-psychotic) level as a result of clinical examination, which began in September 2013 (Makushkin et al., 2013).

However, in the Saratov region, the total incidence of mental disorders in the child population from 2013 to 2020 (since the beginning of the medical examination of the child and adolescent population in 2013) decreased by 44.68% in absolute terms and by 47.07% per 100 thousand population.

7. Conclusion

The results of the study showed that in the Saratov region in 2000-2020, the indicators of both general and primary morbidity of children and adolescents significantly exceed similar indicators among the adult population, which is consistent with statistical data for the Russian Federation as a whole. Despite the fact that the indicators of general morbidity among the child population for the period under review in the whole country decreased, however, in some regions, including the Saratov region, there is an increase by 19.39 % per 100 thousand of population. Among adolescents of the Saratov region, the indicators of the general incidence of mental disorders also increased (the growth rate per 100 thousand of population was 18.72 %).

The trends in the dynamics of primary morbidity in the adolescent population are similar to those in children. In the Saratov region, the primary morbidity of both children and adolescents during the study period decreased (the growth rate was -43.61 % and -49.1 %, respectively).

The higher rates of primary morbidity in the adolescent population compared to the child population, revealed as a result of the analysis of the recorded data, may be due to both a more significant, compared with children, decrease in the adolescent population of the region, and untimely diagnosis of mental disorders in children and adolescents. Lower morbidity rates among the child population are a consequence of the late detection of mental illness in children, which is due to both objective diagnostic difficulties in early childhood and insufficient awareness of the population about the manifestations of mental illness and fears of the “stigma” of psychiatric diagnosis. In the adolescent population, a large percentage of diseases are detected at the pre-conscription and conscription age, when adolescents undergo a medical examination at military enlistment offices. The epidemiological data obtained as a result of this analysis indicate the need to improve the system of prevention and active detection of mental disorders at the earliest stages of the disease in the Russian Federation in general, and in the Saratov region in particular.

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