

# MEDICUS

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## **Betimi i Hipokratit**

*Në çastin kur po hy në radhët e anëtarëve të profesionit mjekësor premtoj solemnisht se jetën time do ta vë në shërbim të humanitetit. Ndaj mësuesve do ta ruaj mirënjohjen dhe respektin e duhur.*

*Profesionin tim do ta ushtroj me ndërgjegje e me dinjitet. Shëndeti i pacientit tim do të jetë brenga ime më e madhe. Do t'i respektoj e do t'i ruaj fshehtësitë e atij që do të më rrëfëhet. Do ta ruaj me të gjitha forcat e mia nderin e traditës fisnike të profesionit të mjekësisë.*

*Kolegët e mi do t'i konsideroj si vëllezër të mi.*

*Në ushtrimin e profesionit ndaj të sëmurit tek unë nuk do të ndikojë përkatësia e besimit, e nacionalitetit, e racës, e politikës, apo përkatësia klasore. Që nga fillimi do ta ruaj jetën e njeriut në mënyrë absolute. As në kushtet e kërcënimit nuk do të lejoj të keqpërdoren njohuritë e mia mjekësore që do të ishin në kundërshtim me ligjet e humanitetit. Këtë premtim po e jap në mënyrë solemne e të lirë, duke u mbështetur në nderin tim personal.*

## **The Oath of Hippocrates**

*Upon having conferred on me the high calling of physician and entering medical practice, I do solemnly pledge myself to consecrate my life to the service of humanity. I will give my teachers the respect and gratitude which is their due. I will practice my profession with conscience and dignity. The health of my patient will be my first consideration. I will respect the secrets which are confided in me, even after the patient has died. I will maintain by all the means in my power, the honor and the noble traditions of the medical profession.*

*My colleagues will be my brothers.*

*I will not permit considerations of religion, nationality, race, party politics or social standing to intervene between my duty and my patient. I will maintain the utmost respect for human life from its beginning even under threat and I will not use my medical knowledge contrary to the laws of humanity. I make these promises solemnly, freely and upon my honor*

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# MENTAL HEALTH AMONG CHILDREN AND YOUTH IN THE SKOPJE REGION FOR THE YEAR 2021

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## ABSTRACT

**Introduction:** Mental health is a state of mental well-being enabling people to cope with life's stresses, realize their potential, learn well and work well, and contribute to their community. Risks of mental health disorders can manifest at all stages of life, but those that occur during developmentally sensitive periods, especially early childhood, are harmful.

**Purpose:** The purpose of this paper is to give a complete overview of the incidence of mental illness in children and school children and youth in the Skopje region for the year 2021 in the outpatient - polyclinic activity.

**Research methodology:** As a working material, a standard summary report on the established morbidity in the primary health care offices of small, school children and youth was used. The social-medical work method and descriptive statistics methods were used.

**Results and discussion:** In 2021, in health institutions (practices) that provide health care for small and school children in the area of Skopje region, there were reports of disorders from 249 practices that examined small children and 137 practices for school children. A total of 462,895 visits were made in these clinics. In the structure of the total determined morbidity, mental disorders in young children amount to 0.55%. The distribution of mental disorders in this group of children is the highest (1.27%) in males aged 5-6 years. The number of disorders of the "Disorders in psychological development" group is the highest, i.e. 273 male children and 146 female children. In the total morbidity determined, mental disorders among school children and youth amount to 2.05%. According to the age distribution, children aged 15-19 years are mostly represented, excluding the youth. Disorders in psychological development occur as early as the age of 7-9 years and in a much larger number compared to young children. One male child aged 7-9 out of 100 children visited a family physician due to psychological development disorders. The highest percentage of young children who visited family doctors due to mental disorders is in the municipality of Centar (16.4%). Second is municipality of Kisela Voda (16.3%) and third - the municipality of Gjorce Petrov (15.4%). In the municipality of Zelenikovo, there is no registered disease of this type among children aged 0-6 years. The highest percentage of school children who visited family doctors due to mental disorders is in the municipality of Aerodorom (16.5%). Second comes the municipality of Karposh (14.1%) and the third place is for the municipality of Gazi Baba (11,7%).

**Conclusion:** The data show that urban municipalities have a higher number of reported mental disorders compared to the rural ones for both analyzed groups of children. However, a clear answer should be found as to what the reason behind this condition might be. Is there a difference in the awareness of parents and their care for children with this type of disorder, or in rural areas this type of disease occurs less often. Among young children (0-6 years old), according to gender representation, male children with this type of disorder (0.62%) visited a doctor more often than female children (0.47%). The largest number of male children, 118, visited a doctor due to a disorder in psychological development at the age of 3-4 years. In girls, these disorders are observed twice less than in boys. There are mental disorders that are identified at the earliest age of 2 months, which speaks of the awareness of parents and their concern for the mental health of their children. The data confirms that parents continue to seek ways and services to treat their children in higher levels of health care, as well.

**Keywords:** mental health, young children, school children, health condition, ambulatory-polyclinic activity.

## INTRODUCTION

Mental health is a state defined as well-being in which: the individual realizes their own abilities, copes with the normal stresses of life, works productively and successfully and is able to contribute to the community. Mental health is as important as physical health for the overall well-being of the individual, the society and the country (1). As with many physical illnesses, mental and behavioral disorders are the result of a complex interaction between biological, psychological and social factors. Contrary to the old idea that mental problems are rare, the new insights and experiences reveal the true picture that in fact - mental problems are quite common: they attack people of every age and in all countries. No country is immune to mental health issues. Particularly important, in this context, is the young population and children, and every community should mobilize its capacities to ensure a healthy environment for the full development of the young person (2). Young people today are surrounded by numerous negative influences from the environment which they live in. Mental health is more than the absence of mental disorders (3). The incidence of mental health problems is also significantly related to conditions where there is a hearing impairment from birth or early childhood which can have lifelong consequences for the social adjustment and mental well-being of the individual in terms of communication, education, identity and employment. Studies show that the incidence of deafness is increased in children with autism spectrum disorders. A limited research indicates that the incidence of autism spectrum disorders among deaf students is also significantly higher, with one study identifying an estimated incidence of 1 in 76 children. Children with severe hearing impairment are at greater risk of developing psychiatric disorders and poor psychosocial adjustment compared to their hearing peers (4). It exists as a complex continuum, experienced differently from one person to another, with varying degrees of severity and distress and potentially very different social and clinical outcomes. Mental health conditions include mental disorders and psychosocial disabilities, as well as other mental conditions associated with significant distress, impairment in functioning or risk of self-harm (5). Exposure to adverse social, economic, geopolitical and environmental circumstances - including poverty, violence, inequality and environmental deprivation - also increases people's risk of experiencing mental health conditions. Risks can manifest at all stages of life, but those that occur during developmentally sensitive

periods, especially early childhood, are harmful. For example, harsh parenting and physical punishment are known to undermine children's health, and bullying is a leading risk factor for mental health conditions. Deaf children are at greater risk of being physically and sexually abused and this in itself can cause the development of emotional/behavioral problems or other psychiatric disorders. Mental health risks and protective factors can be found in society at different scales. Most people do not develop a mental health condition despite exposure to a risk factor, and many people with no known risk factor do (6). Protective factors similarly emerge throughout our lives and serve to strengthen resilience. These include our individual social and emotional skills and attributes, as well as positive social interactions, quality education, decent work, safe neighborhoods and community cohesion, among others.

## PURPOSE

The purpose of this paper is to give a complete overview and to perceive the current conditions with mental illnesses among children, school children and youth, including children with hearing difficulties and cochlear implants in the outpatient-polyclinic activity in the Skopje region for 2021.

## MATERIALS AND METHODS

The standard summary report on the established morbidity in the primary health care practices for children aged 0-6 and for school children and youth, was used as work material. The social-medical work method and descriptive statistics methods were used.

## RESULTS AND DISCUSSION

In the health institutions (practices) that provide health care for small and school children in the area of the Skopje region in 2021, there were reports of disorders from 249 practices that examined small children (0-6 years) and from 137 practices for school children. A total of 462,895 visits were made in these practices. Of these, 61.81% were visits to a doctor for the treatment of school children and youth, while 38.19% were visits made by small children from 0-6 years of age. In the structure of the total determined morbidity, mental disorders in young children amount to 0.55%. The distribution of mental disorders in this group of children is the highest (1.27%) in male children aged 5-6 years. The largest number of



disorders is within the “Psychological Development Disorders” group, i.e. 273 boys and 146 girls. This type of disorder is observed as early as the age of 2 months. The number of male children aged 3-4 years is the highest, which indicates an early - quick reaction of the parents who go to the doctor’s for this type of disorders in their children. The percentage of established mental disorders in relation to the total established morbidity in young children is shown in Table 1. The distribution of mental disorders according to gender and age in children from 0-6 years is also shown. In terms of gender

representation, this type of disorder is more prevalent among male children (0.62%) than female children (0.47%). The largest number of male children - 118, visited a doctor due to a psychological development disorder at the age of 3-4 years. The same trend of these disorders is also observed at the age of 5-6 among male children (117). In girls, these disorders are observed twice less than in boys. According to the analyzed data, it can be concluded that these mental disorders, which parents are worried about, i.e. they visit a doctor at an early age, are an indicative sign that a prompt reaction is necessary.

Table 1. Percentage of established mental disorders in relation to the total number of disorders in the health care of children aged 0-6 years in the Skopje region for 2021

Diseases	ICD code	Total		up to 2m		3-5m		6-11m		1-2y		3-4y		5-6y	
		m	f	m	f	m	f	m	f	m	f	m	f	m	f
Total ( I - X0X, X06 )	A00-T98, Z00-Z99	27796	25496	3360	3254	3034	3079	9019	8181	17029	23541	24439	21039	20074	17371
Total ( I - X0X )	A00 - T98	62229	55192	1200	1264	2132	2464	6204	2604	20817	17757	13024	12097	14146	12260
Mental retardation	F70-F79	0	3	0	0	0	0	0	0	0	0	1	0	2	3
Disorders in psychological development	F80-F89	273	146	3	0	0	0	0	0	25	29	115	41	117	47
Other mental disorders and behavioral disorders	F00-F09,F90-F99	110	111	0	0	0	0	2	10	15	17	37	40	70	44
Total F00-F99	F00-F99	209	260	3	0	0	0	2	10	30	46	124	101	100	20
Percentage	%	0.62	0.47	0.23	0.00	0.00	0.22	0.08	0.30	0.25	0.26	0.05	0.64	1.27	0.79

Source: Center for Public Health - Skopje

The percentage of established mental disorders in relation to the total determined morbidity among school children and youth is shown in Table 2. In the total determined morbidity, mental disorders among school children and youth amount to 2.05%. According to the age distribution, children aged 15-19 years are mostly represented, excluding the youth. They participated with 2.78% male and 2.69% female children for this type of disorder in relation to the total number of established disorders at this age. Disorders in psychological development occur as early as the age of 7-9 years and in a much greater number, compared to young children. The percentage of this type of mental disorders increases with age, but at the same time, the number of other types of mental disorders, also increases. Stress-related neurological and somatoform disorders occur, as well. Students in the age group of 20-24 years have the highest percentage of disorders, which is to be expected, compared to school children. Adolescence is a sensitive period of opportunity for detection and treatment of emotional concerns, as more than half of such problems in adulthood have an onset prior to the age of 14, with three quarters experiencing these problems prior to the age of 24 (7). The age range between 12 and 17 years is a period of greater risk for the emergence of symptoms of anxiety and depression,

and such symptoms carry the greatest individual and social burden of all types of mental health difficulties (8). If untreated, early-onset anxiety and depression disorders are negatively associated with social and family functioning, psychological distress, poor academic performance and increased suicidality. (9).

Graph 1 shows that the highest percentage of young children who visited a family doctor due to mental disorders is in the municipality of Centar (16.4%). Then follows the municipality of Kisela Voda (16.3%) and third is the municipality of Gjorce Petrov (15.4%). The graph clearly shows that urban municipalities have a higher number of reported mental disorders compared to rural ones. However, a clear answer should be found as to what the reason behind this condition might be. Is there a difference in the knowledge (awareness) of parents and their care for children with this type of disorders, or in rural areas this type of disease occurs less often. In the municipality of Zelenikovo, there is no registered disease of this type among children aged 0-6 years. The highest percentage of 1.7% was shown in the municipality of Ilinden. It is followed by Čučer Sandevo and Aračinovo with (0.3%), while Studeničani and Sopište reported 0.2% of mental disorders among children at a young age. The municipality of Butel has a small number of specialist

practices, which can be a reason for making an accurate diagnosis more difficult when it comes to mental disorders in young children. Children can show clear features of anxiety disorders, attention deficit/hyperactivity, conduct disorder, depression, post-traumatic stress disorder, and neurodevelopmental disabilities, such as autism, at a very

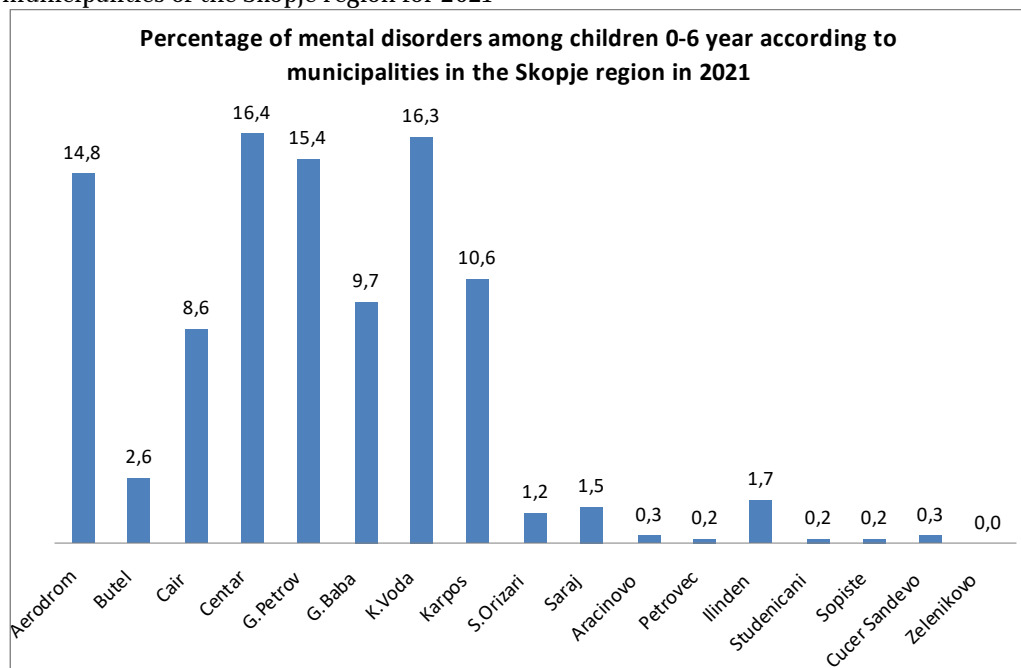
early age. However, young children react to and process emotional experiences and traumatic events in ways that are very different from adults and older children. Consequently, diagnosis in early childhood can be much more difficult than in adults (10).

Diseases	ICD 10 code	Total		upto 7y		7-9y		10-14y		15-19y		20-24y	
		m	f	m	f	m	f	m	f	m	f	m	f
TOTAL (I - XIX, XXII)	A00-T98, Z00-Z99	80070	81900	0	0	20230	17024	27947	23880	29480	22078	14443	19278
TOTAL (I - XIX)	A00-T98	29421	40241	0	0	12213	13263	18749	14884	14183	10370	10700	13704
Mental and behavioral disorders caused by alcohol use	F10	0	0	0	0	0	0	0	0	0	0	0	0
Mental and behavioral disorders caused by the use of other psychoactive substances	F11-F19	30	20	0	0	0	0	1	1	0	0	23	27
Schizophrenia, schizotypal and delusional disorders	F20-F29	81	42	0	0	0	0	0	0	16	10	65	21
Mood disorder (affect)	F30-F39	41	107	0	0	0	0	0	5	32	21	29	20
Neurotic, stress-related and somatoform disorders	F40-F49	49	207	0	0	11	8	20	21	131	110	227	300
Substance use disorders	F50-F59	122	39	0	0	4	3	34	7	20	13	28	18
Disorder in psychological development	F60-F69	221	74	0	0	107	20	42	31	60	20	17	7
Other mental and behavioral disorders	F70-F79, F80-F89, F90-F99	301	281	0	0	92	29	100	92	93	120	11	27
Total F00-F99	F00-F99	1260	1175	0	0	217	60	200	180	304	431	424	473
Percentage	%	1,7	1,4	0,00	0,00	1,40	0,63	1,30	1,13	2,78	2,63	3,84	3,40

Table 2. Percentage of established mental disorders in relation to the total number of disorders in the health care of school children and youth in the Skopje region for 2021

Source: Center for Public Health - Skopje

Graph 1. Percentage of established mental disorders in the health care of children aged 0-6 according to the municipalities of the Skopje region for 2021



Source: Center for Public Health - Skopje

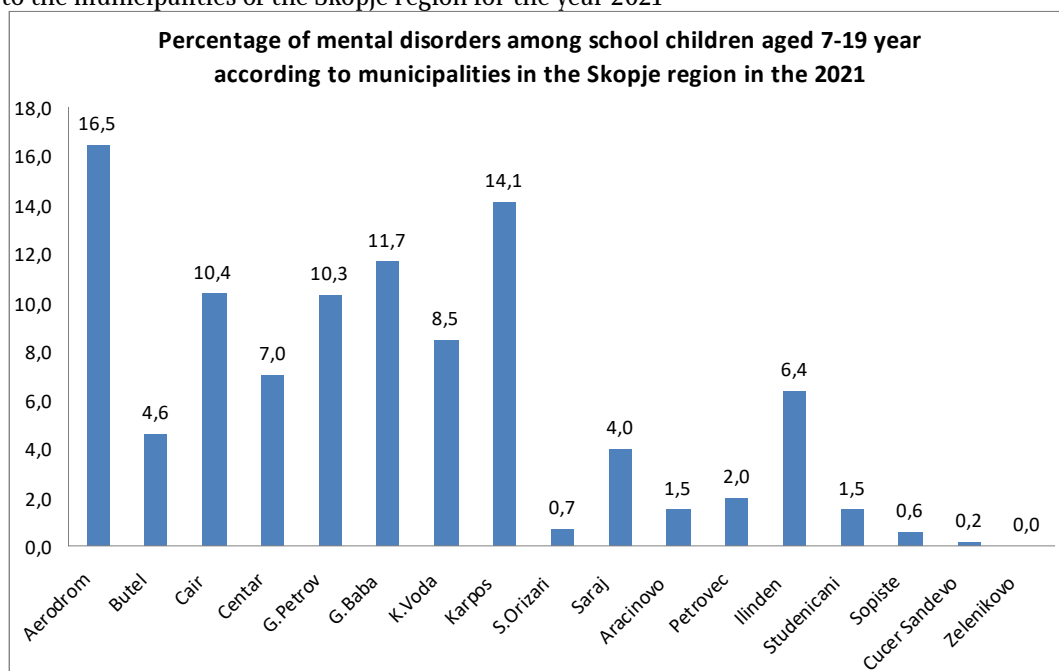
Graph 2 shows that the highest percentage of school children who visited a family doctor due to mental disorders is in the municipality of Aerodorom (16.5%). Then follows the municipality of Karposh (14.1%) and in

third place is the municipality of Gazi Baba (11.7%). What is striking from the graph is that Butel municipality has the lowest number of reported mental disorders compared to other city municipalities (4.6%). With reference to the

rural municipalities, the highest percentage of 6.4% was shown in the municipality of Ilinden. It is followed by Petrovec 2.0%, Aračinovo and Studeničani - (1.5%), while Sopište reported 0.6% of mental disorders among school-aged children. Municipality of Chucher Sandevo reported 0.2%, and Zelenikovo did not report a single disorder

of this type for school children, same as in the case of young children. It is especially significant because this period is quite vulnerable in terms of adolescent health and reproduction. It is the future workforce of a country and detection and treatment of mental health in this age group, should be taken seriously.

Graph 2. Percentage of established mental disorders in the health protection of school children and youth according to the municipalities of the Skopje region for the year 2021



Source: Center for Public Health – Skopje

### CONCLUSIONS

According to Miloševa, (16), development is under considerable influence of language, as language mediates social relations and aids in behavioral control. As a result, language delay may be an underlying cause of problem behaviors (12). Children with sensorineural hearing loss were thus often reported to exhibit more severe behavioral problems than their hearing peers did (14). These patients not only showed more externalizing behavior problems (e.g., rulebreaking and aggressive behaviors) than the hearing children (30–50% vs. 3–18%), but demonstrated higher rates of internalizing problems (e.g., anxiety and depression; 25–38% vs. 2–17%) (15). They also exhibited more attention problems and had less parent-child communication (14). Unfortunately, we still do not have enough data which will identify and distinguish more precisely what kind of mental health problems showed children with sensorineural hearing loss or children with cochlear implants.

Mental disorders in children aged 0-6 years are the highest (1.27%) in males aged 5-6 years. The number of disorders of the “Disorders in psychological development” group is the largest. This group of disorders can be due to a number of disorders that need to be diagnosed and treated early. One of the frequent occurrences of this sign of psychological disorder, when the child does not respond appropriately to the stimulus, is autism and deafness. The highest percentage of young children who visited family doctors due to mental disorders is in the municipality of Centar (16.4%), the municipality of Kisela Voda (16.3%) and the municipality of Gjorce Petrov (15.4%). Urban municipalities have a higher number of reported mental disorders than rural ones. In the total morbidity established, mental disorders among school children and youth amount to 2.0%. According to the age distribution, children aged 15-19 are mostly represented. Stress-related neurological and somatoform disorders occur, as well. The highest percentage of school children who visited the family doctor due to mental disorders is from

the municipality of Aerodorom (16.5%). In relation to rural municipalities, the highest percentage of 6.4% was seen in the municipality of Ilinden. There are differences in behavior and presentation of symptoms depending on age, but even young children can have difficulties. The authors share and agree that there has been progress in identifying early onset of mental health disorders, but challenges still exist (18). Preventive strategies and identifying mental health problems and those at risk of developing mental health problems are of key importance. Properly implemented strategies can positively impact emotional well-being and life-course outcomes. Attention to early mental health problems is vital because early interventions with children and families can have a major impact on the future development and problems.

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