



TEACHERS' AWARENESS OF DISORDERS IN STUDENTS WITH EPILEPSY

Dimitrina Blagoeva, Tanya Popova,
Department of Health Care, Faculty of Public Health, Medical University - Sofia, Bulgaria.

SUMMARY:

Epilepsy is one of the most common neurological diseases, characterized by recurrent epileptic seizures. Epilepsy can be caused by various factors affecting the brain. Any process affecting the child's brain during its formation leads to insufficient maturation of nerve elements in their morpho-functional structure. Depending on the degree and nature of the brain damage, the location of the lesion, its depth and spread, there are different forms of epilepsy, manifesting themselves in different ways. Disorders accompanying the disease are: attention deficit, neuropsychiatric disorders, motility disorders. Children with epilepsy may have a general intellectual disability (mental retardation), global developmental delay, hearing or vision impairment, autism spectrum disorders and others.

The **aim of the present** study is to research and analyze the awareness of teachers working in educational institutions about the disorders and the presence of learning difficulties in students with epilepsy.

The **materials and methods** used in the study are sociological, documentary and graphical analyses of the results. The study included 133 teachers working in schools in the city of Sofia.

Results and discussion: The study found that the largest group of teachers aged 31 to 40 years - 39.10%. About 57% of respondents said that students with epilepsy have an attention deficit, but a large percentage of respondents said that there was a decrease in concentration. The study found that teachers were aware of the disease but did not have enough information about the disorders that accompany epilepsy and the learning difficulties that students with epilepsy may have.

Keywords: epilepsy, students, awareness, disorders,

INTRODUCTION

Epilepsy is one of the most common neurological diseases. Epilepsies are chronic diseases of the brain of various etiologies, characterized by recurrent seizures of sudden quantitative and/or qualitative disorders of consciousness. [1]

Epilepsy can be caused by various factors affecting the brain. The factors responsible for the occurrence of the disease, in their totality, can also be divided into two groups. One of them is the genetic factors that determine a certain predisposition and heredity in epilepsy. The sec-

ond group is the acquired factors, which can include different and diverse in nature and etiology of brain damage, such as malformations of the brain, trauma, tumors, vascular disease, inflammatory diseases of the brain (meningoencephalitis), various intoxications and others.

The causes can vary depending on the age of onset of epilepsy. [2,3, 4] The causes of epilepsy are different: hypoxemic and metabolic disorders that lead to permanent brain damage, infectious and traumatic injuries, structural abnormalities of the CNS. In these cases, epilepsy is referred to as symptomatic. It usually occurs in the first four years of life.

In children, epileptic seizures, as well as therapy with antiepileptic drugs, affect the development of the structures of the central nervous system, the formation of higher mental processes, ensuring the adaptation of the child's body to environmental conditions. This leads to pronounced changes in personality and the functions that form the basis of cognitive activity (attention, gnosis, memory, thinking).[5]

Epilepsy is a disease characterized by epileptic seizures, which are due to excessive discharges of nerve cells in the brain. [6] The disease is characterized by recurrent bouts of loss of consciousness and/or motor, sensory and mental changes. [4,7] Any process affecting the child's brain during its formation leads to insufficient maturation of nerve elements in their morpho-functional structure, which is thought to be accompanied by disruption of neurodynamic processes in the brain as a whole and leads to frequent manifestations of epilepsy in childhood. [8]

In children, frequent seizures have a more damaging effect due to the incomplete development of the brain, but in them, the plastic and compensatory possibilities are greater. The effects of chronic seizures affect the development, structure and function of the brain.

Depending on the degree and nature of brain damage, the location of the lesion, its depth and spread, there are different forms of epilepsy, which manifest themselves in different ways, affecting mental processes as a whole, the whole body, personality development and childhood development. The localization of the epileptogenic focus also affects cognitive deficits. Brain dysfunction is at the root of disorders of neuropsychological development, which in children with epilepsy are observed from an early age. [9]

Disorders accompanying the disease are: attention deficit, neuropsychiatric disorders, motility disorders. Damage to the central nervous system from the presence of brain lesions affecting nerve centers responsible for the development and cognitive functioning affected: speech, memory, oral and written speech, disorders of oral practice, weakness of articulation, various forms of dysarthria, stuttering, affects the formation of auditory-speech memory, nonverbal functions and communication.[10] Verbal learning, speech functions, memory and information processing deteriorate with the location of epileptic foci in the left hemisphere, while nonverbal functions, visual abilities, focused attention affect control and nonverbal communication - with epileptic foci in the right hemisphere.

The greatest severity of cognitive impairment is observed when the localization is in the left hemisphere. If epileptic foci are localized in the temporal lobes, they can lead to cerebral dementia (disintegration of the simplest programs and target activity) and behavioral disorders.

Children with epilepsy, whose epileptic foci are located in the parietal-occipital region of the brain, have disorders of constructive practice and visual-spatial gnosia, as well as difficulties in learning to read and write. [2, 11]

Children with epilepsy may have a general intellectual disability (mental retardation), global developmental delay, hearing or vision impairment, autism spectrum disorders, Attention Deficit Hyperactivity Disorder (ADHD), school difficulties and behavioral disorders, speech development disorders, reading disorders, other specific learning difficulties, inability to social integration. In addition, patients with epilepsy do not master school material well and more often stay in the same class, have less developed skills and abilities for socialization and lower results in the performance of tasks. [12]

Intelligence in patients with epilepsy is characterized by impaired perception, decreased concentration, short-term temporary and operative memory, motor activity, visual-motor coordination, constructive and heuristic thinking, speed of educational skills, social integration and education, reduced quality of life of patients. [13]

OBJECTIVE

The aim of the present study is to study and analyze the awareness of teachers working in educational institutions about the disorders and the presence of learning difficulties in students with epilepsy.

METHODS AND MATERIALS

The survey was conducted among 133 teachers working in schools in the city of Sofia in the period from February to May 2021. The research used a documentary, sociological method - a survey was conducted on the basis of voluntary and anonymous surveys on specially developed questionnaires. Statistical method and method for graphical analysis of the obtained data were used. The graphics were created using the Microsoft Office Excel program.

RESULTS

The age characteristics of the teachers from the educational institutions that took part in the survey show that the group of respondents with the highest relative share is aged 31 to 40 - 39.10%. In second place are teachers aged 41 to 50 years - 26.32%, and in third place - from 51 to 60 years - 24.81%. Although a minimal part - 9.77% are teachers aged 21 to 30 years. (fig. 1)

Fig. 1. Age distribution of teachers

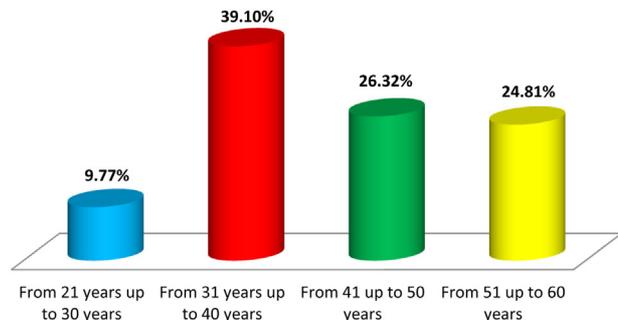


Figure 2 presents data from a study on teachers' awareness of epilepsy. Respondents with the highest relative share (62.41%) indicated that they were informed about epilepsy "to some extent". A smaller proportion of teachers - 25.56% said they had information about the disease, and 4.51% said they could not judge.

Fig. 2. Teachers' awareness of epilepsy

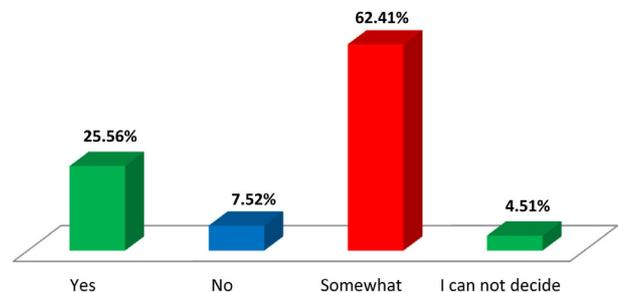
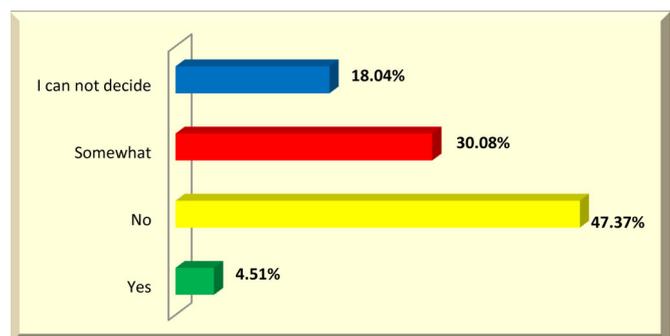


Figure 3 shows the results regarding the presence of learning difficulties in the learning process.

Fig. 3. Learning difficulties in students with epilepsy, according to teachers



The highest is the relative share of the surveyed teachers, who answered “no” - 47.37% and 30.08% indicate that students with epilepsy have learning difficulties “to some extent”. According to 4.51% of the surveyed teachers, students have such difficulties.

The results show that, according to teachers, students with epilepsy do not have intellectual disabilities. The relative share of respondents who indicated that there is no violation of intellectual development is the highest - 51.88%. The second most common response with a relative share of 27.07% is “I can not decide”, and 18.04% of them indicate that “to some extent” violations are observed. (fig. 4)

Fig. 4. Impaired intellectual development of students, according to teachers

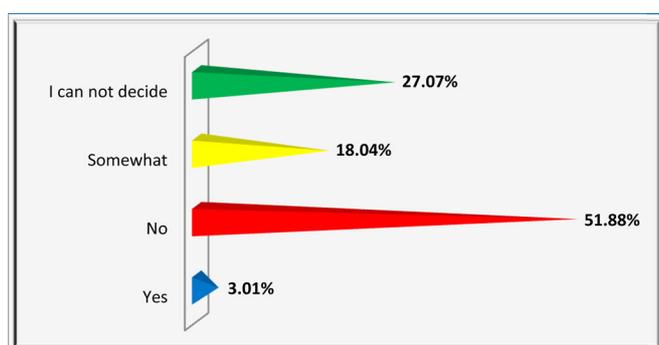
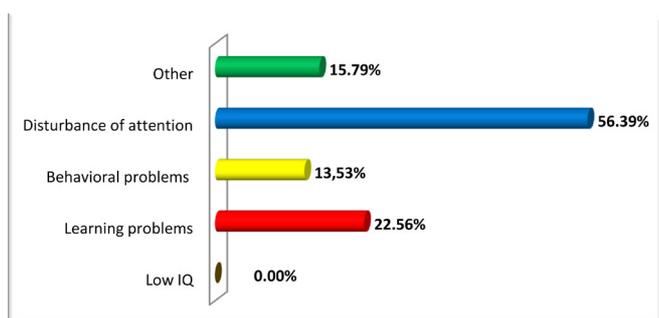


Figure 5 shows the disorders that students with epilepsy may have, according to teachers. With the highest relative share of 56.39%, the respondents who participated in the survey indicated attention deficit disorder. A smaller proportion of teachers, 22.56%, reported “learning problems.”

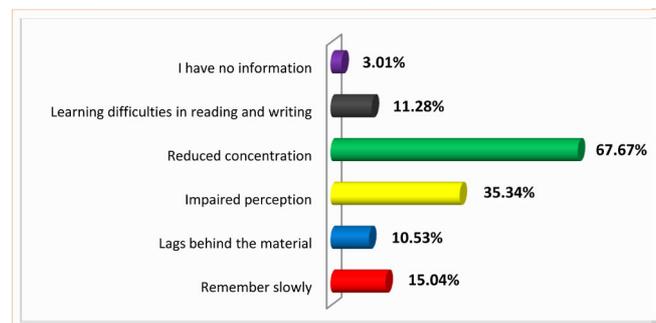
Fig. 5. Disorders that students with epilepsy have, according to teachers



Students (children) with epilepsy may experience difficulties at school, which are most often manifested by specific learning difficulties, reading disorders, as well as lower performance in various activities and tasks.

Figure 6 shows the analysis of the results of the study in terms of the problems that students with epilepsy may have. The highest is the relative share (67.67%) of teachers who indicated that there is a reduced concentration of these students. The next most common response, with a relative share of 35.34%, is impaired perception.

Fig. 6. Problems that students with epilepsy may have in the learning process



In the third place, with a relative share of 15.04%, the participants in the study indicate slow memorization of the study material. With the lowest relative share of 3.01%, teachers indicated that they had no information about the problems that students with epilepsy may have.

DISCUSSION:

The study found that the largest group of teachers aged 31 to 40 years - 39.10%. More than half of the teachers indicated that they were informed about epilepsy “to some extent” - 62.41%, but a large percentage of respondents said that students with epilepsy do not have learning difficulties. About 57% of respondents said that students with epilepsy have an attention deficit, but a large percentage of respondents said that there was a decrease in concentration.

CONCLUSION:

In conclusion, the results of the study showed that teachers were informed about the disease but did not have enough information about the disorders that accompany epilepsy and the learning difficulties that students with epilepsy may have.

The results of the study do not confirm the existing data in the scientific literature on the disorders and problems accompanying epilepsy. The results of the study show that teachers need additional information by conducting health education in schools about the health and social problems of students with epilepsy.

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Address for correspondence:

Dimitrina Blagoeva
Lecturer Department of Health Care, Faculty of Public Health, Medical University of Sofia
8, White Sea Str., 1527 Sofia, Bulgaria.
e-mail: dimi_blagoeva@abv.bg,