

VISUAL IMPAIRMENT AMONG CHILDREN WITH DISABILITIES

Holhoş Larisa-Bianca* , Holhoş Teodora-Laura**, Coroi Mihaela*, Jessica Covaciu*, Lazar Liviu*

*University of Oradea, Faculty of Medicine and Pharmacy, University of Oradea, Street Piața 1 Decembrie, nr. 10, Oradea,

Bihor 410087, Romania, e-mail: lariholhos@yahoo.com;

**Arad University, Faculty of Medicine and Pharmacy

Abstract

According to te 2010 estimated by the World Health Organization (WHO), almost 285 million people of all over the world and of all ages are visually impaired. The most common types of disabilities among children are visual, hearing, physical, mental and learning. On a national level, among 805.159 of all people with disabilities, 63.217 are children having one or more visual disabilities. Visual impairment among children with disabilities is a very studied topic all over the world, but is not the same in our country. Among children with disabilities, others than visual ones, the visual acuity is one of the most used sense and has the greatest importance because they depend on visual stimulus in order to be able to understand and to communicate with background environment every disability can affect the general development of a child, but if that child has more than one disability, the negative impact on his life can be huge.

Key words: children, disability, visual impairment

INTRODUCTION

The most common disabilities among children are the visual one, hearing, physical, mental and learning one. When one of the senses is lost, the person uses the others to compensate the lost one and each disability affects the general development of the child and if one or more disabilities are present, then these have a huge negative impact on the quality of life. Among children with disability, others than visual ones, the visual acuity is the most important sense because if they still have it, they are able to communicate and understand the exterior world. [Ostadirnoghaddam H, 2015] [Gogate P, 2011].

The WHO recommends screening for vision problems and providing refractive services to children at school along with other health issues. [WHO; 2000.]

There are a lot of studies worldwide regarding visual impairment among people with disabilities and the majority of them are part of those diagnosed with Down syndrome. In our country there is no study of visual

impairment among children with disability, but there is a huge need for them to be diagnosed if any of visual impairment is present because an early detection can cure most of the diseases or at least could improve their quality of life.

MATERIAL AND METHOD

Children with disabilities, others than visual ones, have a greater risk of visual impairment compared with children without any disability. The majority of ocular problems like refractive errors and strabismus are easy to be solved. When all these children depend on their refractive status for a better blending with their exterior world, an early detection is wanted in order to be able to adapt to the desired social world.

The study was conducted as a cross-sectional one in Bihor county, among 80 children belonging to the age of group of 6-15 years. The study was conducted between September 2017 to October 2018 among children with Down syndrome, ADHD, hearing loss, autism and cerebral palsy. The inclusion criteria was having any disability, from mental to physical one. During the study, the ocular motility was tested and the visual acuity was tested using the E-Snellen chart on all 80 children with disabilities. All of the children underwent cycloplegia, the anterior and posterior biomicroscopy was done.

RESULTS AND DISCUSSION

From the total of 80 children with disabilities included in the study, the majority of them had Down syndrome. These children with Down syndrome counted 61. Two of the children were diagnosed with ADHD in the past and other five with autism at the age of 2, each one of them. The number of children with cerebral palsy was 8 and those with hearing loss counted 4. So, the majority of those diagnosed with visual impairment were diagnosed with Down syndrome.

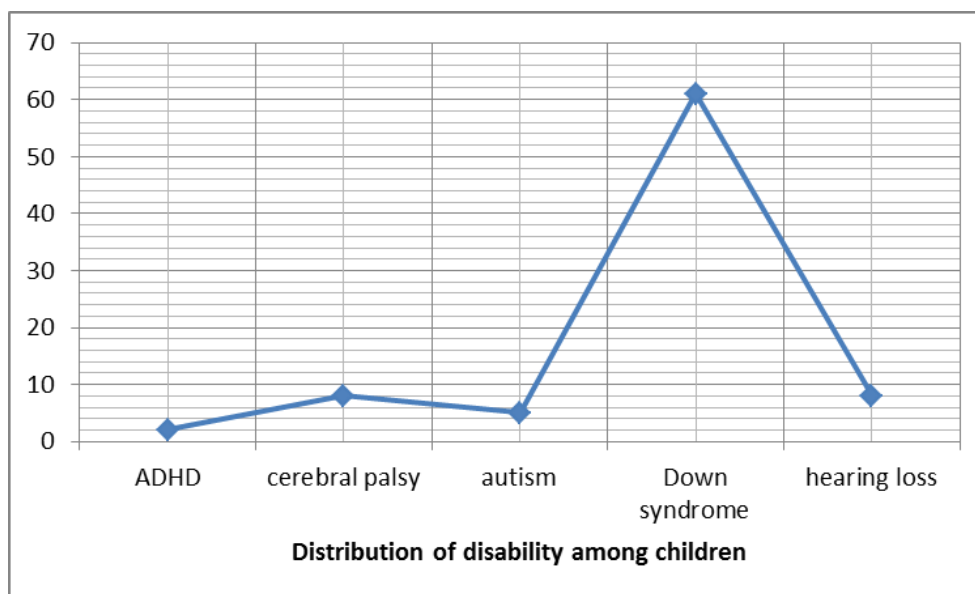


Fig. 1 Distribution of disability among children

CONCLUSIONS

The prevalence of visual impairment in our study population was found to be higher among children who belonged to those having Down syndrome, which correlates with data from literature in which they are the majority.

REFERENCES

1. Bhalwar R. Textbook of Public Health and Community Medicine. 1st ed. Pune: Armed Forces Medical College; 2000.
2. Direcțiile Generale de Asistență Socială și Protecția Copilului județene și ale sectoarelor municipiului București. Source: General Departments for Social Assistance and Child Protection at the country level and at the local level for the districts of Bucharest ANPD Buletin statistic I/2018
3. D. L. McCulloch, P. A. Sludden, K. McKeown and A. Kerr, "Vision care requirements among intellectually disabled adults: a residence-based pilot study", *Journal of Intellectual Disability Research*, vol. 40, no.2. Pp. 140-150, 1996.
4. Gogate P, Soneji FR, Kharat J, Dulera H, Deshpande M, Gilbert C. Ocular disorders in children with learning disabilities in special education schools of Pune, India. *Indian J Ophthalmol*. 2011;59:223-28
5. H. M. Evenhuis, M. Theunissen, I. Denkers, H. Verschuure and H. Kemme, "Prevalence of visual and hearing impairment in a Dutch institutionalized population with intellectual disability", *Journal of Intellectual Disability Research*, vol. 45, no. 5, pp. 457-464, 2001.

6. Holden B, Davis S, Jong M, Resnikoff S. The evolution of uncorrected refractive error as a major public health issue. *Journal and Proceedings of the Royal Society of New South Wales*. 2014;147:453–4.
7. J. Merrick and K. Koslowe, ‘‘Refractive errors and visual anomalies in Down syndrome’’, *Down’s Syndrome, Research and Practice*, vol. 6, no. 3, pp. 131-133, 2001.
8. Murthy GV, Gupta SK, Ellwein LB, Muñoz SR, Pokharel GP, Sanga L, et al. Refractive error in children in an urban population in New Delhi. *Invest Ophthalmol Vis Sci*. 2002;43:623–31
9. Ostadirnoghaddam H, Mirhajian H, Yekta AA, Rad DS, Heravian J, Malekifar A, et al. Eye problems in children with hearing impairment, *J Curr Ophththalmol*. 2015;27:56-59
10. Resnikoff S, Pascolini D, Mariotti SP, Pokharel GP. Global magnitude of visual impairment caused by uncorrected refractive errors in 2004. *Bull World Health Organ*. 2008;86:63–70.
11. World Health Organization, www.who.int/disabilities/world_report
12. WHO. Elimination of Avoidable Visual Disability Due to Refractive Errors: Report of an Informal Planning Meeting, Geneva, 3-5 July, 2000. Geneva: WHO; 2000.