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## PREVENTION OF CHILD HEALTH - INTEGRATIVE MODEL OF CHILDREN'S EYE HEALTH

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**Abstract:** Introduction. Children are extremely sensitive to conditions that damage vision and the visual system. Early diagnosis of eye diseases and visual disturbances in children and adolescents is of particular importance for their physical and mental health, if left untreated, they lead to severe impairment and blindness.

Purpose. The aim of the present work is to study and analyze the awareness of parents about prevention and prophylaxis, the risks and factors affecting children's vision and, accordingly, the complications of untimely consultation.

Material and methods. The study covers 110 parents of children from 1 to 7 years of age in a kindergarten №164 Zornitsa, Sofia. Sociological and documentary research methods were used.

Results. The results show a lack of hereditary burden in 70% of children. A significant proportion of parents, about 55%, are not informed about the complications of untimely consultation and do not have enough information regarding the risk factors for children's vision, which is an indicator of insufficient prevention.

Discussion. Childhood blindness is most often untreatable at a later age. Screening studies of children's visual functions can detect a large number of diseases that threaten their vision in time and take the necessary treatment. In this regard, it is necessary to develop an integrative model with a main focus on high quality promotional, preventive and curative care and services.

Conclusion. Effective treatment of eye diseases depends on their timely detection and early prevention. At present, the protection of children's vision is mainly taken care of by general practitioners, pediatricians and parents.

**Keywords:** children's vision, prevention, awareness

### 1. INTRODUCTION

The protection of children's vision is a priority of many international organizations and programs, such as the International Initiative "Right to Sight 2020" of the World Health Organization (WHO). With screening studies for visual functions in children, a large number of diseases threatening their vision can be detected in time and the necessary treatment can be undertaken [4; 10; 11].

The main causes of blindness in children differ significantly in different regions, which is largely determined by socio-economic development, the availability of primary care and vision care. Uncorrected refractive errors are the leading cause of visual impairment and blindness in all regions of the world. of the world [2; 3]. Unavoidable causes of vision loss (this is the largest group in developed countries) include hereditary retinal dystrophies, CNS diseases and congenital anomalies [5; 7].

Controlling blindness in the child population is complex and requires a multidisciplinary approach. This includes: health promotion, provision of preventive measures, optical, medical and surgical care, as well as the use of funds for the visually impaired, provision of special training and rehabilitation. The necessary measures to be taken to reduce child blindness worldwide are: the introduction of screening programs, the reduction of poverty and the development of models for controlling and preventing blindness that are effective and repeatable [1].

Very often successfully concealed visual deficits in children are misinterpreted, such as lack of attention, overactivity, inability to learn and others.

One of the eye diseases that can be corrected if detected in time is amblyopia. Globally, this disease affects between 2 and 5% of population, indicating the frequency of patients (3-5%) in preschool age [3, 4, 6]

**The purpose** of this paper is to study and analyze the attitude of society towards the mandatory prevention of pediatric vision performed by a general practitioner, the risks and factors that affect it and the complications of untimely consultation with a pediatric ophthalmologist.

### 2. MATERIALS AND METHODS

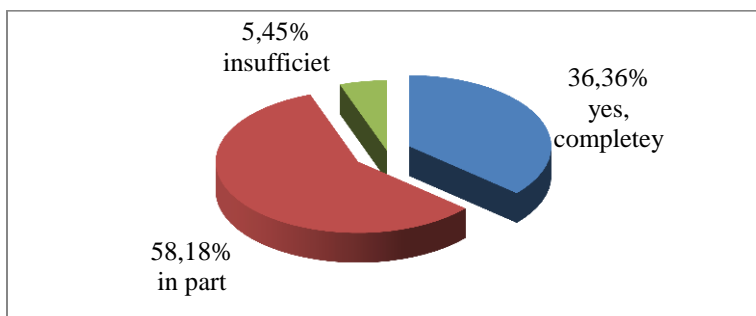
The object of research is the awareness of parents regarding eye diseases in children and their prevention. Sociological and documentary research methods were used. The study is based on the use of a direct individual survey and covers 110 parents of children from 1 to 7 years of age in kindergarten №164 Zornitsa, Sofia.

The analysis of the data from the survey is aimed at clarifying the importance of hereditary burden and characteristics of the causes and motivation for the first examination, access to a specialist, parents' awareness of the nature of the disease, prevention and risk factors.

### 3. RESULTS

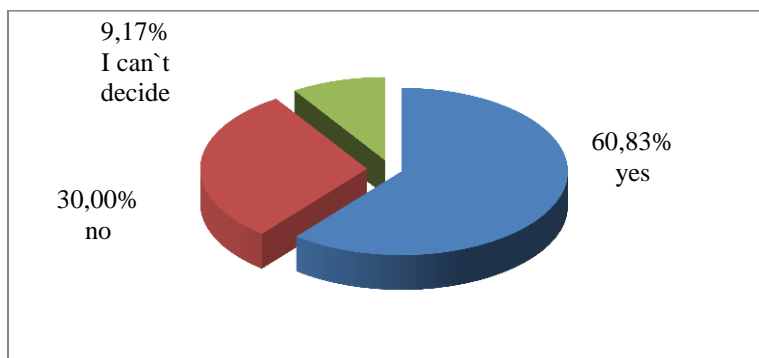
In the survey (Fig. 1) we found that a high percentage of respondents (almost 95%) are of the opinion that the information related to children's eye health is satisfactory and accessible. These results show interest and attitude of parents to the development of children's vision. They should notice in time the signs that the child has vision problems. Early diagnosis in children is crucial to correct visual abnormalities and thus avoid the consequences that can last a lifetime.

*Fig. 1 Do you think there is access to information related to children's eye health?*



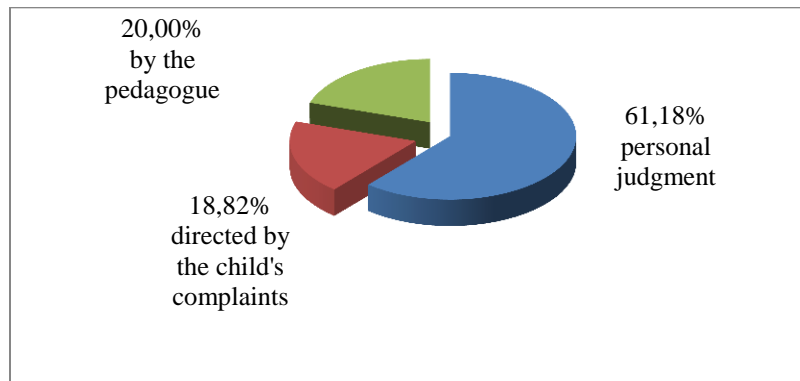
After the abolition of the obligatory prophylactic examinations in kindergartens and schools, the main role and responsibility for the eye health of children in Bulgaria has been handed over to a general practitioner. Unfortunately, performing visual screening in children is difficult due to expensive equipment and lack of trained staff. Therefore, most visual disturbances are detected very late, when treatment options are less. In the survey (Fig. 2) a large number of respondents 67.80% are of the opinion that it is necessary for mandatory preventive eye examinations to be annual in order to reduce the unavoidable causes of vision loss (this is the largest group in developed countries) include hereditary retinal dystrophies, CNS diseases, and congenital anomalies.

*Fig. 2 Do you consider it necessary for the obligatory prophylactic eye examinations performed by a general practitioner to be annual?*



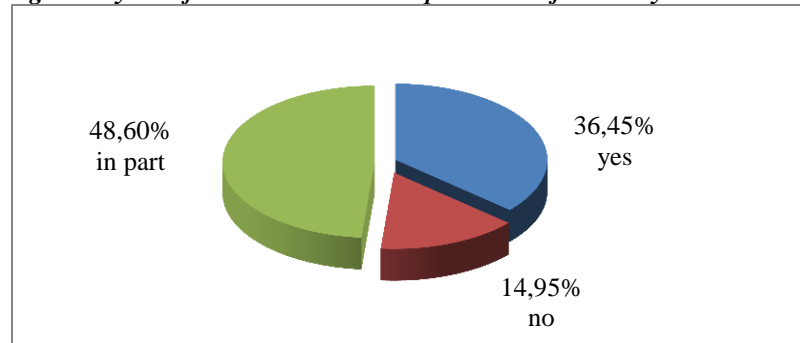
The age of the disease, complications and preventive examinations are essential for the quality of life of children in early childhood with visual impairments. The largest is the relative share of respondents who, at their own discretion, sought consultation with a specialist in pediatric eye diseases (61%); (18.82%) are directed by the child's complaints and 20% by the pedagogue. (Fig. 3)

*Fig. 3 What led you to consult a specialist in "children's eye diseases"?*



The summarized results lead to the conclusion that the majority of parents who answered “yes” (45%) and “partially” (48.60%) were informed about the occurrence of complications during untimely consultation. 80% of the information about the surrounding world we receive through our eyesight. In 7% - 12% of children due to late detection of visual problems leads to a permanent decrease in vision in one or both eyes (lazy eye). In case these problems have been promptly detected and treated, the risk of vision loss is greatly reduced. It is encouraging that a large percentage of surveyed parents (85%) are informed about the complications of untimely consultation with a pediatric ophthalmologist and the percentage is very small. (15%) of those parents who did not seek information about the complications of untimely consultation.

*Fig.4 Are you informed about the complications of untimely consultation?*



#### 4. CONCLUSIONS

Protecting children's vision is the responsibility of society as a whole, not just parents and families. It is necessary to provide better access to screening by a general practitioner for early diagnosis of diseases and qualified specialists for prevention of complications. Diagnosis at an early stage of eye diseases allows for the planned preparation of the child for treatment, as well as for the treatment of concomitant diseases and for better information of parents about the possible risks and complications. physical development and training, as well as for emotional perception, socialization in games, sports, professional orientation and personal realization. On the other hand, research on the child is very labor-intensive, requires an individual approach and understanding of the child's psyche. Children discover the world with their eyes, so it is important to keep them healthy and curious.

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