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Factors That Affect The Increasing Visual Impairment In Children

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ABSTRACT

The use of digital devices (smartphones, tabs and laptops) can result in a sharp decrease in vision in children, especially during the covid 19 pandemic. this will result in visual impairment or anomaly refractive one of them myopia. The Research Purpose is to determine the influence of the use of digital devices (smartphones, tabs and laptops) on the increasing visual impairment or Anomaly refraction in school-age children (12-14 years) at Optik Melawai, Galaxy Mall Lt. 1 no. 103-104 Jl. Dharma Husada no. 35-37 Surabaya. Research using observation analysis, samples taken based on the results of eye examinations, interviews and questionnaires for 3 months, namely September 2020 to November 2021 with the number of patients as many as 75 children. With the study subjects as many as 75 children, with age 12-14 years, among them 48 boys and 27 girls, after examination 100% impaired vision or anomaly refractive and In this study limited only anomaly refractive myopia. The use of digital devices (smartphones, tablets and laptops) can result in visual impairment or anomaly refractive myopia in children.

Keywords : Childern, Digital Devices, Visual Impairment

INTRODUCTION

Technology is developing rapidly, one form of technological development is the use of digital devices (smartphones, tabs and laptops) in daily activities not only parents, adults and adolescents but also used by children especially during the pandemic covid 19 where the learning process uses online methods. Improper use of digital devices such as continuous use with a long duration of not paying attention to distance, lighting and correct body position can result in impaired vision or anomaly Refractive one of them myopia. Myopia is the rays that enter the eye without accommodation being refracted in front of Retina or commonly referred to as farsightedness. This can be due to factors of vision to objects that are too close to a long time, insufficient lighting and incorrect body position.

METHODS

Using observation analysis, where as many as 75 school age children 12-14 years old including 48 children of male sex and 27 children of female gender who come to Optik Melawai, Galaxy Mall Lt. 1 no.103-104, Jl. Dharma Husada no. 35-37 Surabaya in the period september to November 2020 conducted interviews, refractive examinations and questionnaires to determine vision impairment or anomaly refractive and its relationship with the use of the device (smartphones, tabs and laptops).

RESULTS

Table of Characteristics of Research Subjects

Characteristic	n	Percentage (100%)
Gender		
Male	48	64%
Female	27	36%
Age		
12 Year	4	5,3%
13 Year	40	53,33%
14 Year	31	41,33%
Myopia Degree		
Low Myopia	46	61,33 %
Medium Myopia	24	32,00 %
High Myopia	5	6,66%

Source : Primary Data

DISCUSSION

This research have a subject of 75 children, with school age 12-14 years, including 48 boys and 27 girls, after refractive examination known 100% visual impairment or anomaly refractive that is 48 boys more that is 64% and 27 girls as much as 36 %, based on age that is 12 th as much as 4 children (5.3 %) , age 13 years as many as 40 children (53.33 %) and age 14 years as many as 31 children(41.33 %), this study was limited to visual impairment or anomaly refractive myopia. From the results of refractive examination with visual impairment or anomaly refractive myopia based on the degree of known mild myopia with correction – 0.25 – 3.00 D with a total of 46 children (61.33 %), moderate myopia with correction – 3.25 – 6.00 D as many as 24 children (32.00 %) and high myopia with correction of > - 6.25 D with the number of 5 children (6.66 %).

CONCLUSION

Based on research on vision impairment or anomaly refractive Myopia caused by the use of digital devices in children both smartphones, tablets and laptops can be concluded as vision impairment or anomaly refractive Myopia as a result of the use of digital devices (smartphones, tabs and laptops) more in children of the male sex with the number of 48 children (64%). There is a link between the use of digital devices (smartphones, tabs and laptops) and increased vision impairment or anomaly refractive myopia in children. There are differences in vision impairment or anomaly refractive either by age, gender and degree of Myopia where the degree of mild myopia with plano refractive correction – 3.00 D more with the number of 46 children (61.33%).

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