

Assessment of Watching TV Daily Wise and Types of Myopia In Children Of 6-12 Years

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ABSTRACT

In developing countries, 25% of the population is visually impaired, and uncorrected refractive errors are the primary cause of visual impairment. The methodology of the study was conducted in a variety of locations throughout Delhi, with a particular focus on the children's population. Snellen's chart is employed to assess visual acuity while at a distance and in close proximity. The inquiry was conducted from August 2020 to 2022. SPSS version 28.0 employed for all statistical analyses. The results depicted that 246 children watching TV daily wise of 1-2 hrs than less than 1 hrs and more than 3 hrs. The types of the low myopia have the highest children watching TV. The significance of early detection and treatment of visual grime and visual disability in young children is evident, visually impaired individuals lose their sight before the age of 12.

Keywords: Myopia, children, eyes, TV.

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1. INTRODUCTION

The eyes are among the most precious of the sense's organs. They significantly enhance one's cognitive abilities from an early age. A strong health and intellect are significantly influenced by a clear vision. The ultimate shaping of an individual's personality and potential is contingent upon their nature, environment, and quality of vision (Tarutta et al., 2019). Myopia is a significant cause of visual impairment in both adults & infants. Whose onset occurs during early childhood, and it becomes increasingly resistant to treatment as the patient ages (Dong et al., 2020).

The visual system is a multifaceted optical system that involves the collection of light from the environment by the eye, the regulation of light intensity through a diaphragm (pupil), the focusing of light through an adjustable lens assembly to form an image on the retina (Mak et al., 2018). the conversion of this image into a series of electrical signals (photoreceptor cells in the form of cones and rods are present on the retina surface, converting the optical image to an electrochemical signal), and the transmission of these signals to the visual cortex in the brain through optic nerves and neural connections (Karuppiyah et al., 2021). The eyes detect light and convert it into electrochemical impulses to provide visual information about the objects in our environment (Proskurina et al., 2018). Defective vision can be caused by a variety of factors, including the intricacy of the visual system (Hagen et al., 2018). Myopia induced blindness

typically manifests during childhood, and the number of visually impaired individuals in developing countries is approximately twice that of cataract-related blindness (Kim et al., 2020). This condition can also have a significant impact on personal development and career prospects, as well as impose a financial burden on society (Agrawal et al., 2020). A study conducted in India on Refractive Error among Children (RESC) revealed that 7.7% of children exhibit hyperopia and 7.4% exhibit myopia (Pradhan et al., 2018). The objective of the assessment of watching tv daily wise and types of myopia in children of 6-12 years.

2. MATERIAL AND METHOD

The study was carried out in various locations throughout Delhi, with a particular emphasis on the children's population. a box of trial lenses, occluder, modified trial frame, ophthalmometer, retinoscope with self-illumination, ruler for measurement, and torch with cells. Additionally, Snellen's chart is included for measuring visual acuity at distance and near. The investigation was conducted from August 2020 to 2022. In this representation, the sample was randomly selected, and each article in the population had an equal chance of being included in the sample.

The statistical methodologies implemented in this investigation are deemed suitable for the field of optometry. The application of quantitative tools in qualitative research can always add additional potentiality

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and substantiate statistically tested outcomes with the assistance of data analysis techniques.

The informed consent forms were endorsed by the children's parents or custodians, and the children themselves provided their written, straightforward consent to participate in the study. The Ethics Committee of the hospital authorised the research protocol.

3. RESULT AND DISCUSSION

Watching TV daily wise and Types of Myopia:

After the examination through Cross tabulation of watching TV daily wise and types of myopia, is shown in the following table.

Table: 1 Analysis through Cross tabulation between Myopia with Watching TV/Day

Myopia		TV Watched				Total
		<1hr	1-2 hrs	2-3 hrs	>3hrs	
Low	Count	104	118	40	28	290
	% within types myopia	35.9	40.7	13.8	9.7	100
	% within TV watched	61.9	48.0	44	66.7	50.4
	%Total	18.1	20.5	7	4.9	50.4
Moderate	Count	54	82	43	13	192
	% within types myopia	28.1	42.7	22.4	6.8	100
	% within TV watched	32.1	33.3	47.3	18.6	33.4
	%Total	9.4	14.3	7.5	2.3	33.4
High	Count	10	46	8	29	93
	% within types myopia	10.8	49.5	8.6	31.2	100
	% within TV watched	6.0	18.7	8.6	41.4	16.2
	%Total	1.7	8.0	1.4	5.0	16.2
Total	Count	168	246	91	70	575
	% within types myopia	29.2	42.8	15.8	12.2	100
	% within TV watched	100	100	100	100	100
	% Total	29.2	42.8	15.8	12.2	100

Low Degree of Myopia and Watching TV/Day:

In conjunction with the three-hour daily viewing of television, we have implemented a cross-tabulation of low-degree myopia. The % form is also used to express this. Looking at the percentage of people in the Types of Myopia age group, we can see that 35.9% of young adults watch three hours of TV every day. We can observe that 61.9% of the 168 young adults are watching TV for three hours per day if we also consider the percentage of their age in the category of Television Watching. If we aggregate the percentages, we can observe that 18.1% of young adults are watching television for three hours each day.

Moderate Degree of Myopia and Watching TV/Day:

The cross-tabulation has been performed with a moderate degree of myopia and a three-hour daily television viewing habit. This is also represented in percentage form. If we examine the percentage of individuals within the Types of Myopia age group, we can observe that 28.1% of young adults are watching TV for three hours each day. If we also consider the percentage of young adults who watch TV, we can see that 32.1% of the 168 young adults

are watching TV for three hours each day. The total percentage of young adults who watch television for three hours per day is 9.4%.

High Degree of Myopia and Watching TV/Day:

The cross-tabulation has been performed to determine the correlation between a high degree of myopia and the viewing of television for three hours per day. This is also represented in percentage form. If we examine the percentage of individuals within the Types of Myopia age group, we can observe that 10.8% of young adults are watching TV for three hours each day. If we also consider the percentage of the population that is watching TV, we can see that 6% of the 168 young adults are watching TV for three hours each day. When the percentage is taken as a whole, it is evident that 1.7% of young adults are watching television for three hours each day.

4. CONCLUSION

The study has been performed to determine the correlation between a high degree of myopia and the viewing of television for three hours per day. This is due to their primary focus on near activity, particularly the use of watching TV.

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