PARENTAL ATTITUDES TO MYOPIA AND BEHAVIOR TOWARDS CHILDREN VISUAL CARE

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ABSTRACT

PURPOSE: To raise our knowledge of the significance of parental character in the occurrence of myopia and management.

METHOD: *This is descriptive cross sectional study was conducted from October to December 2020 to evaluate the parental view point towards myopia and its progression. Parents of 8-15 years old children in urban areas participated in the study to reveal their viewpoints regarding myopia, their apprehension and their reviews on advance technology on eyes.*

RESULTS: *Sixty three percent parents opined that myopia is health- risk to their child, while 65.3% of parents regarded it optical inconvenience. Myopia was regarded an expense by 49% of parents, a cosmetic inconvenience by 68.8% of parents, a sign of intelligence by 32.3% of parents. 45.6% parents considered advance technology impact on myopia progression. 19.8% considered it genetic predisposition. Twelve percent considered impact of prolonged near work activities. 11.5% of parents considered wearing spectacles a factor for myopia development. Life style modifications were considered to be more effective rather than any therapeutical treatment. 42.7% parents limited their child screen time. 20.8% favoured outdoor activities. 15.6% reduced prolonged period of close work. 9.4% restricted studying or reading while 11.5% restricted wearing glasses.*

CONCLUSION: *The attitude of parents towards myopia was imperturbable in respect to health risk. Nearly, all the parents considered advance technology impact on the eye, so they did some modifications in the child's life style habits. Parents preferred spectacles as a method to correct poor vision.*

KEY WORDS: *Myopia, Refractive error*

INTRODUCTION

Myopia or nearsightedness results when the eye is too long for the light to properly focus on the retina. Light focus before retina rather than on it, which leads to blurry image when a distant object is see, even person can see near objects clearly.[1] Myopia is treated by placing the diverging lens in front of eye to brought light onto the retina. Symptoms of myopia include having difficulty in seeing distant objects, squint eyed, eye buffing.

There are two types of myopia, physiological and pathological. When axial length of eyeball increases, normal, physiological myopia results. While in case of pathological myopia, sclera becomes thin due to uncommon increase in axial diameter of eye. Myopia can also be categorized by the age at which it starts. Congenital myopia is present by birth and the noted predominance in the baby born at his full time varies from 0.0 to 24.2. This flexibility is caused by trouble in determining the refractive error in neonates. School myopia does not fluctuate after teen age means it settles down. School myopia and age onset myopia are due to unknown reason.[2]

Since myopia is a benign condition and corrected with glasses, contact lenses and refractive surgery can also be performed but the prevalence of myopia is rising in East Asia.[3] Myopia is one of the main health issue present internationally. About 2.5 billion are estimated to be effected by myopia globally by 2020 and this figure seems to double again to almost 5 billion by 2050.[4] In previous 30 years, the prevalence of myopia has increased in East and Southeast Asia,[5] and western society is also affected by this increased prevalence rate in which myopia prevalence has become doubled to almost 50% in the same time period especially in school -

leavers in USA,[6] and more than 50% in Europe and UK.[7,8]

In the increased magnitude of myopia, there are critical societal, academic, industrial and standard of life influences. As the myopia prevalence is increasing, the age at which myopia occur is decreasing which is linked with increasing rate of prevalence of myopia,[9] due to which, by the time when myopia settles down in teenage years, people encounter more intense form of it called high myopia.[10] According to statistical analysis, myopia is possible element for many other eye conditions like cataract, glaucoma and retinal detachment other than age.[11] It is the main possible element in myopic maculopathy. Myopic maculopathy is the major cause of blindness in China bringing about 7.7-12.5% of visual impairment in persons above age 40, after cataract.[12]

Latest researches are giving special attention to explore the myopia development and digital devices adoption,[13] especially smart phone and tablet adoption, which came into market over the past 10 years, and now are at frontline in many schools and workshops. Children are growing in the world full of such technology and less time is available for recreation. In USA, youngsters spend 1/3rd of their time in each day using any type of screens.[14] Not all the searches are in favor of near work induced myopia,[15] but the extensive use of screen might be a possible element for the development of myopia and may also be associated with the increased prevalence of myopia particularly in young age.

The raised risk of myopia is also linked with increased time of doing different near work activities like to keep the mobile screen very close to your face, adverse impacts on the time spent outside or some union of these components.

Risk of occurrence of myopia has a very close connection with the time spent outside.[16] More importance given to education by present day societies,[17] and less greenery in urban areas[4] and very vast use of smart phones and other types of digital screens are all considered to lessen the time spent outside and comprise the underlying factors of this unremarkable myopia progression.

Any plan of action that need conditioned response or adoption of a prescribed course of medical treatment can be beneficial or successful, stand on parent knowledge and realization of the situation and their adoption of recommended plans as an important regimen. By encouraging awareness of myopia, its risk elements and treatments will inspire the parents and to stop and cure myopia instead of reducing the symptoms it produces.

MATERIALS AND METHODS

Data was collected by using descriptive cross sectional study. 96 parents actively participated in the study. Non- probability convenient sampling technique was used to collect data. Online data was collected through self-made proforma. They filled a questionnaire which contains many questions regarding view point of parents towards myopia including parental and children demographic data. Frequencies and percentage of different variables were collected. Data was presented by making tables, bar charts and pie charts. Parents were also notified about the objective of the study to avoid any violation of their rights. The research was approved by the Ethical Review Board of College of Ophthalmology and Allied Vision Sciences.

RESULTS

63.5% parents considered that myopia is health-risk to their child, while 65.3% of parents regarded it optical inconvenience. Myopia was also but rarely regarded an expense by 49% of parents, a cosmetic inconvenience by 68.8% of parents, as a sign of intelligence by 32.3% of parents (Fig 1). 45.6% parents considered advance technology impact on eye. While others thought that the genetic predisposition, Prolonged near work activities, wearing glasses and studying or reading as the casual factors (Fig 2). Life style modifications considered to be more effective rather than any therapeutical treatment. 42.7% parents limited their child

screen time. 20.8% promote outdoor activities. 15.6% reduce prolonged period of close work. 9.4% restrict studying or reading. While 11.5% restrict wearing glasses (Table1). When the parents were asked about "what methods of correcting poor vision they know" 55.2% knew only spectacles. 12.5% of parents asked about of home remedies to correct poor vision. 9.4% parents said that contact lens is used to correct myopia. 8.3% of parents were aware of laser refractive surgery to correct myopia, while 5.2% of parents knew about traditional Chinese as a treatment method.9.4% said that they don't know any such method to correct poor vision (Table 2).

DISCUSSION

Myopia is one of the main health issue present globally. About 5 billion people seem to be effected by myopia by the year 2050. In addition, by the year 2050, 10% of people will have high myopia world wide which remarkably increase chances for sightloss.[18]

This study enhances our awareness in regard to myopia especially regarding attitude of parents and realization of the condition. Although many parents in our study considered advance technology impact on progression of myopia and many also limited their child screen time and some parents also promote outdoor activities. But this attitude was found in those parents who considered that myopia is health risk to their child as compared to those who did not consider it health risk.

Myopia prevalence is correlated with genetic predisposition and environs. In Wojciechowski study, myopia was regarded to have a link with the behavioural and environmental elements. Prolonged close work and outside activities were noticed more from surrounding elements.[19]

As the majority of children in our study live in urban areas. Urbanization is correlated with the increased prevalence of myopia due to less greenery, less time available for outside activities and life style alterations in heavily populated regions.[20] Our study found that children living in urban areas spent less time outside as compared to rural children, this urbanisation drift demands an extensive plan of action to alude the continuance and worsening of the noticed pattern of increased prevalence of myopia in urban areas. Having very little knowledge about myopia as shown by parents in this study demonstrates that this plan of action is required so that parents can perform their fundamental role stabilize the outdoor versus indoor activities.

Nearly, all the parents in this study found their child myopia concerning and they also tried to prevent myopia progression. Instead of importance of reading and writing,some parents were also willing to restrict studying. However, parents preferred life style modifications instead of any treatment to prevent myopia progression. Probably this was due to any safety issue or less effectiveness of any method.[21]

The main concept in the management of myopia in children is to first alleviate the symptoms of myopia like blurred distance vision. The professionals, parents and children thought the spectacles most effective method to correct refractive error. It is because of the fact that compliance with this type of treatment is good enough even in youngesters and symptoms of myopia are also controlled to an appreciable extent.[22] And also, by this type of treatment the load on the parents also becomes less as well as there is infrequent need of reminder to wear the glasses, to replace the glasses which have been broken and to go for follow ups.[23] The plan of actions adopted to control the progression of myopia will cause burden to parents. This will not be easy to agree the childen not to use smart

phones and instead of using smart phones go outside.It will also increase the expense of parents. If the parents adopt any therapeutical treatment, there will be added cost of it along with the expense of glasses because glasses will still be needed. The parents will have to take more care of their child like they have to take their child for follow ups and more time to take on any intercession e.g. to insert the drops in eye or contact lens.After this they have to cope with the issues that will arise and the child acceptance problems.That's why, different opinions made in favour to control myopia must be understand thoroughly and clearly by children and parents.

CONCLUSION

The attitude of parents towards myopia was predominantly imperturbable in respect to health risk. Parental view points regarding the risk elements of myopia were also competing with the literature. Nearly, all the parents considered advance technology impact on the eye, So they did some modifications in the child's life style habits. They limited their child screen time and engage their child in outdoor activities. Some parents also restrict their child from prolonged near work activities. The parents who considered reading or writing as the casual factor for myopia restrict their child from reading or writing. Parents preferred spectacles as a method to correct poor vision.

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