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Rising Myopia in Children and Adolescents: Current Challenges and Preventive Strategies

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Abstract:

One of the most rapidly increasing public health problems affecting children and adolescents globally is yopia (short-sightedness). The rapid ramp up is a consequence of heightened digital device consumption, more near-work, less outdoor time and urban living. Over the last 30 years, the prevalence of myopia among people in the world has significantly raised, and it is expected to still rise to 2050. At present these are more directed towards increasing outdoor activities, avoiding excessive near work, good screen management, early screening of vision and early optical or pharmacological intervention in progressive myopia. This work is a brief review of the current burden of childhood myopia, some of the leading risk factors and an overview of current evidence-based interventions to slow disease progression and maintain long-term visual health.

Keywords: Myopia, Children, Adolescents, Vision Screening, Outdoor Activity, Screen Time, Eye health.

INTRODUCTION:

Autism Distant objects may look blurry due to the refractive error: Myopia is a refractive error in which light rays come to a focus in front of the retina. It is related to lifestyle changes such as excessive smart phone and tablet use, computers, high education demands, and limited contact with natural light.

Those children who present with myopia early in life are more likely to have rapid progression and this places them at greater risk of developing high myopia with associated and irreversible ocular complications for their lifetime. Predisposition has also been implicated in disease onset, especially if the mother and/or father are

also myopic. Eating, near vision and sitting for prolonged periods, exposure to the indoor environment, and urban dwellings add to disease progression.

A whole-of population-based strategy is needed to stop myopia from progressing in children. Evidence for the promotion of time spent outdoors at least 90 minutes a day, near vision breaks to prevent continuous near work, right distance and posture, and limiting excess recreational screen time are recommended. Early diagnosis and timely intervention are possible through periodic comprehensive eye exams and routine vision screening at school. Several types of optical interventions, such as the specially design spectacle lenses, multifocal contact lenses, orthokeratology and the low-dose atropine eye drops have been shown to be successful in slowing the progression of myopia in certain children under ophthalmic supervision.

There is a need for joint efforts by schools, parents, healthcare providers and policy makers to encourage healthy visual habits and to make both awareness and evidence-based prevention strategies a regular fixture in schools. The future consequences of progressive myopia are significant in terms of visual impairment and the coordinated care is necessary to reduce this consequence.

CONCLUSION

Myopia appears to be an escalating public health problem worldwide in children and adolescents. Progressive myopia can be slowed and prevented without harm by early detection, avoiding excessive outdoor time, healthy digital device usage and timely, clinical intervention. School vision screening and outreach campaigns will play an important role in protecting kids' vision in the 21st century.

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