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Myopia- A Public Health Issue

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Short Communication
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Short Communication

Myopia is a visual disorder in which light rays do not focus on the retina but in front of the light-sensitive layer of the retina, due to the increasing axial length of the eye causing blurred vision. A very high prevalence was recorded about 1.5 million people (25% of the total global population). The prevalence of myopia was estimated at 21.5% globally in 2000, 27.4% in 2010, and 33.4% in 2020, and expected to increase to 39.4% in 2030, 45.8% in 2040, and 51.7% in 2050. This situation is alarming to create the condition of myopia as an epidemic and a global public health issue in recent years. Myopia is also established as a financial burden that concerns the individual as well as the country's budget where they belong. Due to this ailment, the quality of life is compromised and daily routine tasks like study, occupation, and social life are endangered.

Myopia is graded as < - 3.00 D as low, < -3.00 – 5.75 D as moderate, and > -6.00 D as high myopia. While in the adolescent age group myopia is also graded as "progressive" or school myopia, due to its progression continuously as the child grows. Myopia at this stage affects the vision causing significant effects on the learning ability regarding studies of the children, as well as playing outdoor games and social performance.

Age is a strong risk factor for myopia and visual impairment can affect cognitive response resulting in low grades and educational achievements while family history has also a significant association with preschool myopia. Occupations involving excessive near-work may be triggering factors, and decreased outdoor activities play a major role in myopia development. Environmental effects are common, but genetic causes also affect myopia progression. Vision-threatening conditions may be myopic degeneration, myopic maculopathy (CNVM), staphyloma, retinal hole/tear/ detachment, primary open-angle glaucoma, and earlier NS & PSC cataract as advanced complications.

Myopia may be prevented by early screening, especially at the time of admission in school to detect the onset of myopia if present and preventive measures be taken by prescribing spectacles, regular follow-up visits, and following the advice of the eye health professional may control the frequent progression of the disease. In childhood extra-curricular activities and outdoor games must insure in schools while the use of tiny screens also discouraged and replaced reading activities with desktop computers of large screens. Following 20 second break after every 20 minutes and seeing 20 feet away may be a very helpful technique to minimize the harmful effects of blue light and eye strain.

Primary preventive measures have a very important and significant role to reduce the risks of myopia incidence in childhood as well as adolescence ages adopting comprehensive preventive strategies, to control myopia incidence. In schools, (1-2 hours/day of outdoor activities in the playground) may be part of the daily routine timetable. As secondary and tertiary measures, the government may follow an action plan for the provision of accessible and affordable, and sustainable eye care services. At secondary and tertiary levels health institutes may be capable to provide low vision management and rehabilitative services as an essential part of the eye care facilities. Many countries are performing eye care services at primary, secondary, and tertiary levels of health initiatives and the addition of myopia prevention and control programs and projects must be an integral part of the services with special emphasis on school screening plans on a regular basis. Screening activities in schools once a year may detect and prevent the issue, so managing the myopia progression. Meanwhile, in adults, regular visits to eye health professionals and the fundus examination of the posterior of the retina must be carried out to detect vision-threatening

abnormalities in myopia. Administering low-dose atropine in children (5-18 years of age), use of peripheral defocus contact lenses and orthokeratology technique may be used under the direct supervision of a qualified eye health professional.

The involvement of teachers, philanthropists, social activists, nurses, paramedical staff as well as the general physician can play an important role in the screening process. A training module for screening teams may be developed to take vision and detect common eye diseases in children and adults, so establishing a screening protocol for the affected individuals. Public awareness campaigns by print and electronic media as well as social media may be beneficial to sensitize the community about this visual disorder [1-5].

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