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DIFFERENCES IN CHILDHOOD LIFESTYLE EXPOSURES AND THEIR ASSOCIATION WITH MYOPIA PREVALENCE AMONG YOUNG ADULTS RAISED IN THE GULF AND INDIA

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Background: Myopia is a refractive eye disorder characterized by impaired distance vision and is influenced by both genetic and environmental factors. In recent years, the global prevalence of myopia has increased significantly. This rise has been associated with modern lifestyle patterns, particularly increased near-work activities, prolonged screen exposure, digital learning, and reduced outdoor activity during childhood. This study aimed to compare childhood lifestyle exposures and their possible association with myopia prevalence among young adults raised in Gulf countries and India.

Aim: To evaluate the association between childhood lifestyle exposures and myopia prevalence among young adults raised in Gulf countries compared to those raised in India.

Methods: A comparative cross-sectional study was conducted among participants aged 18–30 years who spent the majority of their childhood years (6–18 years) in either Gulf countries (United Arab Emirates, Saudi Arabia, or Qatar) or India. Data were collected digitally using a structured questionnaire distributed through Google Forms. Exposure variables included childhood screen time, outdoor activity, near-work activities, digital learning exposure, and sleep duration. Myopia status was determined based on self-reported diagnosis and/or the use of corrective lenses for distance vision. Participants were categorized according to their country of upbringing. Statistical analysis was performed using chi-square tests and logistic regression analysis while adjusting for potential confounding variables, including age, gender, and parental history of myopia.

Results: A total of 53 participants were included in the study, comprising 23 Gulf-raised participants and 30 India-raised participants. Among Gulf-raised individuals, 78% reported using corrective lenses for distance vision, compared to 30% among India-raised individuals.

Higher trends of screen exposure and greater use of digital devices for educational purposes were observed among Gulf-raised participants. Additionally, lower levels of outdoor activity were reported in this group. Associations between lifestyle exposures and myopia prevalence were assessed using chi-square tests and logistic regression analysis.

Conclusion: The findings of this study suggest a possible association between childhood lifestyle exposures and myopia prevalence among young adults raised in Gulf countries and India. Increased screen exposure, greater reliance on digital learning, and reduced outdoor activity may contribute to the observed differences in myopia prevalence between the two populations. Further large-scale studies are required to better understand these associations and their long-term implications.

Keywords: Myopia, India, Life Style.

Variable	Gulf-raised participants (n=23)	India-raised participants (n=30)
Corrective lenses use for distance vision	78%	30%
Digital Homework / Schooling usage	More commonly reported	Less commonly reported
Outdoor Activity	Lower trends observed	Higher trends observed

Table 1. Comparison of visual correction, digital academic exposure, and outdoor activity between India and Gulf participants