Angka Kejadian Astenopia Dan Faktor-Faktor Yang Mempengaruhi Pada Anak SMP dan SMA Negeri Di Jakarta Di Era Pandemi COVID-19 = Prevalence and risk factor assessment of Asthenopia among Middle and High School Children in Jakarta during COVID-19 Pandemic

Hielda Afpa Koeswara, author

Abstrak

Latar Belakang: Pembelajaran jarak jauh anak sekolah selama pandemi COVID-19 menyebabkan penggunaan perangkat digital sebagai media pembelajaran. Peningkatan pajanan monitor dan aktivitas melihat dekat diduga meningkatkan angka kejadian astenopia.
Tujuan: Mendapatkan angka kejadian astenopia subjektif dan menilai faktor yang mempengaruhinya pada anak SMP dan SMA Negeri di Jakarta di era pandemi COVID-19.
Metode: Penelitian dengan desain potong lintang menggunakan kuesioner Revised Convergence Insufficiency Symptom Survey (CISS) diadaptasi ke dalam Bahasa melalui tahapan validasi. Skoring CISS 16 sebagai batasan keluhan astenopia yang dialami subjek.
Hasil: Kuesioner CISS versi Bahasa adalah valid dan reliabel dengan nilai p<0,05 dengan koefisien Cronbach’s ± sebesar 0,910 dan 0,925. Subjek penelitian sebanyak 901 responden. Angka kejadian astenopia sebesar 36%. Analisis multivariat didapatkan pencahayaan ruangan yang kurang terang di luar PJJ (OR=8,25;p=0,001), durasi screen time >2 jam saat PJJ (OR>3,73;p=0,001), penyakit mata lain (OR=3,72;p=0,002), melakukan aktivitas dekat dengan posisi berbaring (OR=2,45;p=0,014), durasi tidur malam <8 jam (OR=2,29;p<0,001), penggunaan kacamata (OR=2,10;p<0,001), aktivitas dekat menonton film dengan perangkat digital/TV (OR=1,67;p=0,004), dan jarak baca <30 cm saat PJJ (OR=1,47;p=0,016) merupakan faktor risiko independent untuk astenopia pada anak sekolah.
Kesimpulan: Kuesioner CISS versi Bahasa merupakan instrumen yang valid dan reliabel untuk mendiagnosis astenopia pada anak sekolah. Angka kejadian astenopia di Jakarta cukup tinggi dengan faktor risiko berupa pencahayaan ruangan kurang terang, durasi daring >2 jam, penyakit mata lain, aktivitas dekat dengan posisi berbaring, durasi tidur malam <8 jam, penggunaan kacamata, aktivitas dekat menonton film dengan perangkat digital/TV, dan jarak baca <30 cm saat PJJ.
.....Background: Schoolchildren's distance learning during the COVID-19 pandemic has led to digital devices as learning media.
Increased exposure to monitors and near-vision activities is thought to increase asthenopia incidence. Obtain the incidence of
subjective asthenopia and assess the factors that influence Jakarta's junior high and high school students during the COVID-19 pandemic.
Methods: A cross-sectional design study using the Revised Convergence Insufficiency Symptom Survey (CISS) questionnaire was adapted
into Indonesian through a validation stage. CISS score 16 as a limitation of asthenopia complaints experienced by the subject.
Result: Indonesian version of the CISS questionnaire is valid and reliable with p-value <0.05 with

Cronbach's coefficient of 0.910 and 0.925,
respectively. The research subjects were 901 respondents. The incidence of asthenopia is 36%. Multivariate analysis showed that the room
lighting was not bright when distance learning (OR=8.25; p=0.001), screen time duration >2 hours during distance learning (OR>3.73;p=0.001),
other eye diseases (OR=3 ,72;p=0,002), doing activities close to the lying position (OR=2,45;p=0,014), sleep duration <8 hours
(OR=2,29;p<0,001), wearing glasses (OR=2 ,10;p<0.001), close activity watching movies with digital devices/TV (OR=1.67;p=0.004), and
reading distance <30 cm during distance learning (OR=1.47;p=0.016) were independent risk factors for asthenopia in schoolchildren.
Conclusion: Indonesian version of the CISS questionnaire is a valid and reliable instrument for diagnosing asthenopia in school children.
The incidence of asthenopia in Jakarta is relatively high with risk factors in the form of poor lighting, online duration >2 hours, other eye
diseases, activities close to lying down, sleep duration <8 hours, use of glasses, close activities watching movies with digital devices/ TV,
and reading distance <30 cm during distance learning.