

ABSTRAK

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PROGRAM STUDI : Kesehatan Masyarakat
JUDUL : Hubungan Intensitas Pencahayaan Dan Durasi Penggunaan Laptop Dengan Gejala Kelelahan Mata (*Astenopia*) Pada Pegawai Di Pt. Pln (Persero) Up2b Dki Jakarta & Banten Tahun 2026

Penggunaan laptop dalam waktu lama berisiko menyebabkan kelelahan mata (*astenopia*), dengan gejala seperti mata lelah, kering, dan penglihatan kabur. Salah satu faktor yang diduga berperan adalah intensitas pencahayaan yang belum memenuhi standar 300 lux (Permenaker No. 5/2018). Studi pendahuluan di PT. PLN (Persero) UP2B DKI Jakarta dan Banten menunjukkan 75% dari 20 pegawai mengeluhkan kelelahan mata, dengan pencahayaan beberapa ruang hanya 142–200 lux.

Penelitian kuantitatif analitik cross sectional ini bertujuan mengetahui hubungan intensitas pencahayaan dan durasi penggunaan laptop dengan kelelahan mata pada 67 pegawai (total sampling) di PT. PLN (Persero) UP2B DKI Jakarta dan Banten Tahun 2026. Pencahayaan diukur dengan lux meter; durasi laptop dan keluhan diukur dengan kuesioner modifikasi ASQ-17. Data dianalisis univariat dan bivariat (χ^2 , $\alpha=0,05$).

Hasil: 33 responden (49,3%) mengalami kelelahan mata; 40 (59,7%) berada di pencahayaan tidak memenuhi standar; 45 (67,2%) berdurasi laptop lama. Tidak ada hubungan signifikan antara pencahayaan ($p=0,370$; OR=1,778) maupun durasi laptop ($p=0,730$; OR=0,729) dengan kelelahan mata.

Disimpulkan kedua variabel tidak berhubungan signifikan dengan kelelahan mata; faktor lain seperti kepatuhan kacamata koreksi diduga lebih berperan. Perusahaan disarankan menjaga standar pencahayaan dan mengedukasi pegawai soal faktor lain penyebab kelelahan mata.

Kata Kunci: Intensitas pencahayaan, durasi penggunaan laptop, kelelahan mata, *astenopia*, PT. PLN (Persero) UP2B DKI Jakarta dan Banten.

ABSTRACT

NAME : Aryana Devi Sri Ambarwati
STUDY PROGRAM : Public Health
Title : The Relationship Between Lighting Intensity, Duration Of Laptop Use, And Symptoms Of Eye Fatigue (Asthenopia) Among Employees At Pt. Pln (Persero) Up2b Dki Jakarta & Banten In 2026

Prolonged laptop use carries a risk of eye strain (asthenopia), manifesting as symptoms such as tired eyes, dryness, and blurred vision. One suspected contributing factor is lighting intensity that falls below the 300-lux standard (Minister of Manpower Regulation No. 5/2018). A preliminary study at PT. PLN (Persero) UP2B DKI Jakarta and Banten revealed that 75% of 20 employees complained of eye strain, with lighting levels in several rooms ranging only from 142 to 200 lux. This quantitative, analytical, cross-sectional study aimed to determine the relationship between lighting intensity, laptop usage duration, and eye strain among 67 employees (total sampling) at PT. PLN (Persero) UP2B DKI Jakarta and Banten in 2026. Lighting was measured using a lux meter, while laptop usage duration and symptoms were assessed using a modified ASQ-17 questionnaire. Data were analyzed using univariate and bivariate methods (chi-square, $\alpha=0.05$).

Results: 33 respondents (49.3%) experienced eye strain; 40 (59.7%) worked in lighting conditions that did not meet standards; and 45 (67.2%) had long durations of laptop usage. No significant relationship was found between lighting intensity ($p=0.370$; $OR=1.778$) or laptop usage duration ($p=0.730$; $OR=0.729$) and eye strain.

It is concluded that neither variable was significantly associated with eye strain; other factors, such as compliance with wearing corrective eyewear, likely play a more significant role. The company is advised to maintain lighting standards and educate employees on other factors contributing to eye strain.

Keywords: Lighting intensity, laptop usage duration, eye strain, asthenopia, PT. PLN (Persero) UP2B DKI Jakarta and Banten.

