

ABSTRACT

**COMPARISON OF COLOR VISION TESTING USING ISHIHARA
PSEUDOISOCROMATIC PLATE AND FARNSWORTH D-15 PANEL
IN ELEMENTARY SCHOOL, JUNIOR HIGH SCHOOL AND HIGH
SCHOOL IN YAYASAN TAMAN PENDIDIKAN SOSIAL NU (YTPS-NU)**

KHADIJAH SURABAYA

(Cross Sectional Observasional Analytic Study)

Muhammad Zidny Fahmi, Prillia Tri Suryani

Objective : To acquire prevalence of student aged 6-17 in elementary, junior high, and high school of Khadijah, to analyse the determine the agreement between 2 color vision test and to determine the diagnostic value of Farnsworth D-15 color vision test.

Methods : This study was a cross sectional observasional analytic study. 902 subjects enrolled were school going individual, aged 6-17 years old, examined in school health unit of Khadijah School. Each student was assessed with Ishihara pseudoisochromatic (PIC) plates and Farnsworth D-15 (FD-15) panels. McNemar and Coffecient Kappa was performed to analyse color vision defect detected by Ishihara PIC and FD-15 test.

Results : The prevalence of color vision was 2,0% in Ishihara PIC test and 3,8% in FD-15 test. McNemar test shows difference between 2 color vision test. Cofencient Kappa (κ) shows the agreement between 2 color vision testing is good. The diagnostic value of FD-15 test shows sensitivity value 77,8% and specificity value 97,7%.

Conclusions : For school color vision screening, the Ishihara PIC test was better than Farnsworth D-15 test to determine color vision defect.

Keywords : color vision, children, defect, Farnsworth D-15, Ishihara PIC