

## Does Knowledge of the Causes of Glaucoma Impact Adherence?

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**Purpose:** Glaucoma is informally known as loss of sight due to the deterioration or damage to the optic nerve; some scientists claim to have identified the genes related to these causes. The most prevalent risk factor includes those of African descendant. We tested the hypothesis that the adherence level is higher in patients with more knowledge of their condition than those with none.

**Methods:** A dataset of the first visit from a clinical diagnosis of open-angle glaucoma was retrieved, in which all the patients administered once-daily prostaglandin analog eye drops themselves. Participants were on average  $60.38 \pm 9.93$  yrs of age and identified as African descendants; of the 29 patients, 16 self-identified as male and the rest female. Participants were specifically asked to “Please list in rank-order the three most important factors that you believe caused your illness”. We grouped the results into three different conditions: <sup>(1)</sup> those with at least on “true” (current factors that are widely accepted scientifically) risk factors vs those with none, <sup>(2)</sup> those who included race as a risk factor vs those who did not, and <sup>(3)</sup> those who listed any risk factors vs those with none. We compared the adherence within each condition using two-tailed t-test to calculate the “level of significance”.

**Results:** Our results did not agree with our hypothesis. The values returned were: <sup>(1)</sup> 0.1244, <sup>(2)</sup> 0.3744, and <sup>(3)</sup> 0.2516. Because all three results were  $\geq 0.05$ , our data displayed that there were no relationship between the groups. It meant that our outcomes were most likely a consequence of chance with no significance.

**Conclusions:** Though our results were not consistent with our hypothesis, we were still able to come to a different deduction: whether or not individuals are educated on the causes of their conditions, their adherence will only improve if they decide it so.