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Background: Glaucoma is one of the leading causes of blindness in African Americans. Treatment options include therapeutic drops and surgical interventions. Very few studies have investigated exercise in mature age groups with primary open angle glaucoma. Most people have heard that exercise is good for them.

Objectives: This study set out to determine if walking for twenty minutes has any clinically significant effect on intraocular pressure (IOP) on older patients with Primary Open Angle Glaucoma.

Method: Thirty patients, aged 40 to 60 years of age had their IOP measured using Goldmann Applanation tonometry at baseline between 9:00am and 9:30am using a quasi-experimental cross-section design. After completing a 1288 meter outdoor walk in 20 minutes at a moderate pace, IOP was measured at thirty minute and sixty minute post rest periods.

Results: Patients participating in the study had been diagnosed with primary open angle glaucoma for a minimum of 5 years. IOP decreased from 18.0+/- 2.0mmHg at baseline to 16.0+/-3.0mmHg after the exercise. Determination of walking for twenty minutes using specific indicators was assessed using a one tailed t-test. Results identified a significant, positive decline in IOP after moderate exercise ($p < .05$).

Conclusion: Exercise has a positive impact on lowering intraocular pressure. As clinicians we need to be more aware of the effects of IOP on patients who have daily exercise routines. We can also use this information for encouragement of health promotion.

Learning Areas:

- Advocacy for health and health education
- Chronic disease management and prevention
- Diversity and culture
- Provision of health care to the public
- Public health or related education
- Public health or related research

Learning Objectives:

Evaluate the effects of twenty minutes of exercise on intraocular pressure in mature patients with primary open angle glaucoma.

Keywords: Prevention, African American

Presenting author's disclosure statement:

Qualified on the content I am responsible for because: I have been a public health Doctor of Optometry for over 20 years. I have three primary eye care facilities in Chicago and the western suburbs dedicated to primary eye care including early diagnosing, treatment and education of the public about the harmful effects of glaucoma. Serving approximately 11,000 patient lives, I have been the co-principal of federally funded grants focusing on glaucoma early detection and treatment in at risk populations.

Any relevant financial relationships? No

I agree to comply with the American Public Health Association Conflict of Interest and Commercial Support Guidelines, and to disclose to the participants any off-label or experimental uses of a commercial product or service discussed in my presentation.

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