CONCLUSIONS

Younger patients are more likely to use smartphones in their low vision rehabilitation. A low percentage of patients reported any recommendation from their low vision rehabilitation professionals to use smartphones. However, younger patients are using smartphone technology more, older patients are interested in learning about these capabilities.

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A Survey of Smartphone Usage in Low Vision Patients

Purpose

Smartphones are impacting conventional low vision rehabilitation. Features included in these phones allow for magnification, photo capture, GPS with voice navigation, illumination, and more. The availability and development of more accessibility features allows eye care professionals to better accommodate the low vision needs of their patients. We utilized a survey to determine the demographics and current usage of smartphones among visually impaired patients in Illinois.

Methods

Forty-six patients from the Spectrios Institute in Wheaton, Illinois and the Chicago Lighthouse responded to an IRB-approved survey (21 males, 25 females). Patients were selected randomly at the conclusion of low vision exams or were asked to participate in a telephone version of the survey. Only patients over the age of 18 were eligible to participate, with best corrected visual acuity ranging from 20/70 to No Light Perception.

Results

The mean age of the subjects surveyed was 60.6 years and the range was 18 to 97. There were 16 different diagnoses, with primary open angle glaucoma (8), exudative macular degeneration (7), and non-exudative macular degeneration (5) being the most common. Eleven of forty-six (24%) patients used smartphones (mean age 36, mean visual acuity right eye 20/146, left eye 20/107, 30 of 46 (65%) used a basic mobile phone (mean age 67, mean acuity in the right eye 20/273, left eye 20/320), and 5 of 46 (11%) patients did not own a cell phone (mean age 75, mean acuity right eye 20/155, left eye 20/121). Among the smartphone users, 9 of 11 (82%) patients reported purchasing their phone because of the features offered. The most common features utilized by low vision smartphone users besides basic phone calling included texting (100%), internet (27%), and email (36%). Seven of forty-six (15%) patients reported that a low vision doctor recommended a smartphone for its accessibility features. Twenty of thirty-five (57%) non-smartphone users (mean age 62) reported they were interested in learning more about adaptive technology features provided by smartphones.