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Efficacy of a Low Vision Patient Consultation

Dennis W. Siemsen, A. Renée Bergstrom, and Julie C. Hathaway

Abstract: A variety of obstacles can prevent persons or individuals with low vision from deriving the greatest possible benefit from the rehabilitation process, including inadequate understanding of their visual impairment, lack of knowledge about available services, and misconceptions about low vision devices. This study explores the use of a patient-education consultation to enable patients and their families to take better advantage of low vision services.

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Clinic founder Dr. Charles H. Mayo noted (Willius, 1997, pp. 14–15), "The object of all health education is to change the conduct of individual men, women and children by teaching them to care for their bodies well, and this instruction should be given throughout the entire period of their educational life." Studies have shown that in the current health care climate educational interventions, such as an adjunct to standard medical management, improve outcomes and reduce medical costs for patients with chronic disease (Lorig Sobel, Ritter, Laurent, & Hobbs, 2001; Lorig et al., 1999). Successful patient education goes beyond disease-specific knowledge. It emphasizes the development of problem-solving skills that increase patients'

confidence in their ability to take control of their situation (Bodenheimer, Lorig, Holman, & Grombach, 2002). Self-management education also focuses on promoting a physician-patient partnership (Bodenheimer et al., 2002).

To achieve the best possible outcome for each patient, many departments of the Mayo Clinic in Rochester, Minnesota, work with its Section of Patient Education to develop patient education plans that complement clinical encounters. A staff of instructors teach classes and provide educational consultations. As conducted at the Mayo Clinic, an educational consultation is a 30-minute private, one-on-one visit with an education specialist who provides more detailed explanations, clarification, and support regarding the patient's medical condition.

Pilot project

The Mayo Clinic Low Vision Service of the Department of Ophthalmology worked with the Section of Patient Education to develop an educational consultation program to prepare patients for the low vision rehabilitation process. By introducing patients and families to these services and answering their questions, the education specialist can ultimately reduce the time required for patient education by other service providers. This pilot program was implemented in the summer of 2001, with a follow-up survey completed in the autumn of 2001.

The need for educational consultation

Occurrence of vision loss typically creates a number of challenges for patients and their families. Patients often fear loss of independence, families may not understand the depth of the patient's problems, or patients may be in denial. Even when referred for low vision care, patients and families may believe that it is "just another eye exam," and respond with "I've tried

magnifiers, and they don't work for me." Consequently, patients and families do not understand the need for additional testing and training. According to data collected from the Lighthouse National Survey on Vision Loss (Lighthouse, 1995), few people with visual impairments are utilizing available, effective low vision services. In their executive summary on low vision, the National Eye Institute noted that patients generally had little awareness of low vision devices (National Eye Institute, 1997). In addition, there was a lack of awareness of services, and even people or individuals who knew of services failed to access them because they did not perceive their vision to be poor enough to need them.

The authors of this project identified two significant issues faced by the low vision service at the Mayo Clinic. First, patients and families unfamiliar with the benefits of low vision services hesitated to commit to the multiple appointments and additional testing required for successful rehabilitation. Second, lack of knowledge about prescribed devices and the training necessary to use them properly created resistance that proved to be a barrier to receiving appropriate care. The low vision patient-education consultation was conceived to help overcome these barriers by providing initial information about how low vision services can contribute to independent living.

Objectives

The objectives of the low vision education consultation are to: (1) encourage hope about using any remaining vision, (2) clarify the purpose of the low vision service and what to expect in the evaluation and training process, and (3) explain reasons for additional vision testing.

Roughly two-thirds of patients seeking care from the low vision service at the Mayo Clinic travel more than 30 miles.

Consequently, patients need to accomplish as much as possible during their stay, so a two-day initial evaluation is planned. Patients are referred to the Section of Patient Education prior to their appointments with the low vision service. The education specialist listens to the concerns of the patient and family, and explains how aspects of the low vision evaluation process are specifically designed to address these issues. Features include: (1) an automated visual field test with special large-format fixation targets, (2) a social services evaluation, (3) a thorough low vision examination, and (4) training in daily living skills and the use of devices by an occupational therapist.

Materials

Through training sessions and review of existing educational materials on low vision, the instructors developed an educator guide to address the following critical issues.

Patient learning objectives and content

Educators are provided with a comprehensive script that includes the major topics to cover. Once they become familiar with the material, the education specialists can improvise according to patient needs and level of understanding.

Resources and emphasis

An education specialist facilitates dialogue with the patient and family. Additional resources and information are provided to reinforce key concepts. These include written information such as books and pamphlets, anatomical models, examples of devices for daily living, and Mayo Clinic materials.

Learning activities

Activities include making lists of problems encountered because

of low vision, setting training goals, and formulating questions to ask the physician. This task is useful in helping the patient to focus on the rehabilitative nature of the low vision program.

Documentation

After the patient-education consultation is completed, the educator summarizes the encounter in the patient's electronic medical record. The low vision specialist has immediate access to this report and reviews it prior to the patient visit, which may be one or more days after the education consultation.

Method

After the program had been in operation for seven months, a survey was conducted with 64 subjects who had participated. In accordance with Mayo Institutional Review Board guidelines, patients were selected for the survey only if they had initially signed an authorization agreement allowing for participation in research studies. Of the 64 patients in the original group, four had declined participation in research studies and one was deceased. Letters were sent to the remaining 59 subjects indicating that a member of the survey team would be contacting them by telephone to discuss participation. A total of 45 subjects were called. Of these, 34 (76%) responded to the caller's survey questions.

Results

There were three general areas of interest in the survey. First, the appointment process was evaluated. Some of the initial feedback indicated that scheduling the extra visits was difficult for people with vision loss and resulting transportation issues.

Second, patients were asked whether they had a good experience, and whether the consultation was worth the time and effort. The

first three questions related to the patient-education specialists and their skills. Of particular note was the question asking about the clarity of the explanation of the low vision evaluation and training process. Twenty-seven (79%) of the respondents stated that the explanation of the process was clear. As patients with low vision and their families are often confused as to what happens during the appointments, this was an important finding.

We were surprised to find that a majority of subjects (24, or 70%) reported they understood their visual impairment better after the consultation. Such understanding was not an emphasis of the program, where it was expected that questions would merely be raised and recorded for later discussion with the physician at the low vision examination.

Eleven (33%) of the subjects either had no opinion or disagreed with the statement that they were better prepared for their low vision examination postconsultation, and 8 (24%) had no opinion or disagreed that their family members better understood their visual impairment. However, 29 patients (85%) agreed that the education consultation was very good, and 28 (82%) could not think of any additional information that would have been helpful.

The third area of interest concerned the highest level of education the subject had completed. The respondents were almost equally split among grade 11 or less (30%), completed high school (36%), and college level and beyond (33%). (One respondent did not answer this question.)

Discussion

In implementing this program, there was some concern that the extra visit to the clinic required for the consultation would create an additional barrier to participating in the program. The response of the participants in the pilot study indicated that the scheduling

was convenient and made the program accessible. However, this does not take into account those patients who could not be contacted, or those who used low vision services but did not participate in the education consultation. In future studies, a broader base of interviews will be needed to revisit this point.

There was a noteworthy connection between level of education and two of the survey questions. In response to a statement that the education consultation helped to better prepare the patient for the low vision examination in the Department of Ophthalmology, 16 of 22 subjects (73%) who had either a high-school education or less agreed. By contrast, 3 out of 4 (75%) of the subjects who had completed college or had advanced degrees were neutral or disagreed. In response to the statement that family members or support persons better understood the patient's visual impairment after the consultation, 20 out of 22 (90%) of the grade 11 or less or completed high school group agreed, while 3 out of 4 (75%) of the college level and beyond group were neutral or disagreed.

Although the sample is small, the general trend raises interesting points. Are people with a college education more likely than those with less education to seek out information about their condition and rehabilitation? And regardless of whether they do, are they more likely to understand their impairment? There is some consistency with the National Eye Institute (1997) study in this area. In that survey, when asked whether they used a computer to access information, many subjects said it was not an appropriate tool. There may be some connection between level of education and computer use that may enable patients to become better informed about low vision services. This point warrants further study, especially in light of a general lack of understanding of the role of low vision services in supporting independent living.

The feedback from the low vision specialist, the social workers, and the occupational therapists was also positive. Because the

staff group consisted of only five persons, they were interviewed instead of surveyed. In this informal evaluation, all agreed that when the patients and their caregivers received information through the education consultation, the staff spent less time answering questions and more time providing care.

Conclusion

The positive feedback received from the participants in the study and the agreement by care providers demonstrated the value of the pilot consultation program. More information is needed regarding potential barriers to utilization of the Mayo Clinic program, and of low vision services in general. Those barriers included transportation issues, lack of knowledge about visual impairment and treatment, and readiness for rehabilitation. In the next phase of this research, a more comprehensive survey and outcome measure will be utilized.

Patient education has been shown to be of great value in other health care areas, but its importance in vision care remains to be established. As a result of this program, the Mayo Clinic Department of Ophthalmology is now working with the Section of Patient Education to expand the consultation program into other subspecialties.

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***Dennis W. Siemsen**, O.D., M.H.P.E., low vision optometrist, Division of Optometry, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; e-mail: <siemsen.dennis@mayo.edu>. **A. Renée Bergstrom, M.Ed.,** patient education specialist, Section of Patient Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; e-mail: <bergstrom.renee@mayo.edu>. **Julie C. Hathaway, M.S.,** patient education specialist, Section of Patient Education, Mayo Clinic, 200 First Street SW, Rochester, MN 55905; e-mail: <hathaway.julie@mayo.edu>. Address all correspondence and requests for copies of the survey to Dr. Siemsen.*

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