Determinants of Access to Low Vision Services - A Montreal Study

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Background

- Low Vision rehabilitation aims to provide people with visual loss with a higher quality of life and the means for reintegration into their communities
- In Quebec, LV is defined as:
  - Best corrected VA of 20/60 (6/18) in the better eye
  - Visual field of 60° in the horizontal or vertical meridian in the better eye
- The Montreal Barriers Study recruited a heterogeneous group of patients fulfilling LV requirements from ophthalmology department waiting rooms.
- It identified a rehabilitation access rate of 54%
- When individuals in the “lack-of-information” group were referred to a LV center, the rate of access was 58%

Objectives

- To investigate the determinants that may influence one’s decision to access LV services in a Montreal retina practice

Methods

- Retrospective chart review study in a retina practice at a large academic institution.
- Consecutive patient records from one medical retina specialist’s practice were reviewed in alphabetical order
- Total of 5,050 charts, spanning 24 years from 1987 to 2011.
- 270 referrals to the MAB-Mackay Rehabilitation Centre (MMRC), one of the two major centers that provide vision rehabilitation services in the Greater Montreal Area.
- Demographic and clinical characteristics, such as age at time of referral, gender, VA at time of referral, diagnosis, and distance from the MMRC, were collected and analyzed for relationships to successful access to LV services (Table 1)

Results

Table 1. Baseline Characteristics

<table>
<thead>
<tr>
<th>Variable</th>
<th>Access to MMRC (n=204)</th>
<th>No access to MMRC (n=66)</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years, mean (sd))</td>
<td>75.8 (13.9)</td>
<td>75.2 (14.8)</td>
<td>.799 (n.s.)</td>
</tr>
<tr>
<td>Sex</td>
<td>Male 122</td>
<td>36</td>
<td>.701 (n.s.)</td>
</tr>
<tr>
<td>Female</td>
<td>92</td>
<td>30</td>
<td></td>
</tr>
<tr>
<td>Distance from rehab centre (km)</td>
<td>11.6 (11.1)</td>
<td>13.1 (11.8)</td>
<td>.688 (n.s.)</td>
</tr>
<tr>
<td>Diagnosis</td>
<td>AMD</td>
<td>155</td>
<td>61</td>
</tr>
<tr>
<td>DR</td>
<td>25</td>
<td>17</td>
<td></td>
</tr>
<tr>
<td>Inherited retinal dystrophy</td>
<td>10</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Other ocular disease</td>
<td>14</td>
<td>7</td>
<td></td>
</tr>
<tr>
<td>VA - Best eye (logMAR)</td>
<td>0.470 equiv: 20/159</td>
<td>0.469 equiv: 20/190</td>
<td>.750 (n.s.)</td>
</tr>
<tr>
<td>Level/Severity of impairment</td>
<td>Mild (better than 20/200)</td>
<td>86</td>
<td>28</td>
</tr>
<tr>
<td>Moderate (20/200-20/700)</td>
<td>56</td>
<td>22</td>
<td></td>
</tr>
<tr>
<td>Severe (worse than 20/400)</td>
<td>8</td>
<td>16</td>
<td></td>
</tr>
</tbody>
</table>

Figure 1. Utilization of low vision center according to degree of visual impairment

Figure 2 Access to low vision services by diagnosis

Discussion

- Of 270 patients referred to the MMRC, the retina specialist successfully obtained compliance from 204 (76%)
- Of those referred, 196 had a diagnosis of age-related macular degeneration (AMD), 42 had diabetic retinopathy, 11 had a retinal dystrophy, and 21 had other ocular conditions (Figure 2). Data analysis showed an association between diagnosis and utilization of low vision rehabilitation services, $X^2 (3) = 9.467, p < 0.05$
- Patients with AMD were more likely than those with other ocular diseases to access low vision services.
- VA and level of visual impairment in patients with AMD did not correlate with the decision to access the MMRC (Figure 1). Other demographic characteristics were not related to whether or not an individual sought low vision assistance.

Conclusions

- The Montreal Barriers Study reported that 54% of people eligible for rehabilitation services actually received them. The source of participants was much broader including ophthalmologists in all adult subspecialties.
- This study demonstrates a higher success rate (76%) of utilization of low vision rehabilitation services.
- It appears that recommendations for LV referral from a retina specialist may be more seriously considered.
- Those with AMD are more likely to accept LV services, compared to those with diabetic retinopathy or other ocular disorders.

References


Disclosures

The authors declare no competing financial interests.