### Supplemental Table 1. Summary of Selected Evidence on Interventions to Improve Leisure and Social Participation for Older Adults With Low Vision

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<th>Author/Year</th>
<th>Study Objectives</th>
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<td>Brody et al. (1999)</td>
<td>To assess whether a self-management group intervention would increase engagement in activities and improve self-efficacy in people with vision loss</td>
<td>Level I RCT N = 92 participants with AMD Intervention group n = 44 Control group n = 48 M age = 79 yr; range = 65–91 yr</td>
<td>Intervention&lt;br&gt;Six weekly 2-hr self-management group sessions, including didactic presentations and problem-solving strategies with guided practice&lt;br&gt;&lt;br&gt;Control&lt;br&gt;Wait list; self-management intervention completed after the intervention&lt;br&gt;&lt;br&gt;Outcome Measure&lt;br&gt;Health and Impact Questionnaire: general health and impact of macular degeneration on one's life, including participation in leisure activities</td>
<td>Participants who provided activities data pre- and postintervention (n = 52) were significantly more likely to report engaging in gardening or landscaping (p &lt; .001) and less likely to report going to movies (p &lt; .001), attending cultural events (p = .006), or participating in religious observances (p &lt; .001) after the intervention.</td>
<td>Time from assessment to intervention varied across participants, with an average of 3 mo; a change in baseline status could have occurred during this time.</td>
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<td>Brunnström, Sörensen, Alsterstad, &amp; Sjöstrand (2004)</td>
<td>To determine the effect that adjusting task lighting in the living room has on the quality of life of older adults with low vision</td>
<td>Level I RCT N = 46 participants; macular degeneration (n = 28), retinitis pigmentosa (n = 2), glaucoma (n = 5), and other (n = 11) recruited from the Low Vision Clinic in Gothenburg, Sweden Intervention group n = 24 Control group n = 22 M age = 76 yr; range = 20–90 yr</td>
<td>Intervention&lt;br&gt;Light adjustments as needed in the kitchen, bathroom, and hall and task light adjustments around the living room reading area&lt;br&gt;&lt;br&gt;Control&lt;br&gt;Same treatment as the intervention group but no task light adjustments in the living room&lt;br&gt;&lt;br&gt;Outcome Measure&lt;br&gt;Perceived Quality of Life: social participation factors including perception of loneliness, contact with relatives, and contact with others</td>
<td>Participants in the intervention group experienced a significant improvement in social participation postintervention, whereas participants in the control group did not.</td>
<td>Information not reported includes group characteristics, reliability and validity of the outcome measure, and power of the sample size. The large range in ages of the participants may be a potential confounding factor.</td>
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<td>Conrod &amp; Overbury (1998)</td>
<td>To study the effects of perceptual training (PT) and individual (IC) and group (GC) psychosocial counseling on the adjustment of older adults living with vision loss</td>
<td>Level I RCT N = 99 participants (49 with low vision [38 with AMD], 50 sighted controls) M age = 70 yr</td>
<td>Interventions&lt;br&gt;• PT: Individualized training including scanning, peripheral viewing, and eye–hand coordination strategies&lt;br&gt;• IC: One-on-one instruction on 5 topics, including education, social participation, and community resources&lt;br&gt;• GC: Same instruction as the IC group but in a group setting</td>
<td>No significant changes were observed on any of the measures related to leisure or social participation. Most participants in all 3 intervention groups resumed engagement in a meaningful activity that they had relinquished because of vision loss (p = .08).</td>
<td>Instructors were not blind to the participants’ treatment status. Follow-up data were missing for 20 participants who could not be contacted.</td>
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<td>Dahlin Ivanoff, Sonn, &amp; Svensson (2002)</td>
<td>To determine whether participation in a health education program would influence perceived security in the ability to engage in daily occupations for older adults with vision loss</td>
<td>Level I RCT</td>
<td>Controls • Low vision: Pre- and post-intervention sessions only • Sighted: Single testing session.</td>
<td>77.8% of GC participants, 30.8% of IC participants, and 57.1% of PT participants reported initiating a new activity ($p = .09$).</td>
<td>The data collectors were not blind to the composition of the programs. Information such as participant characteristics, $p$ values, and power of the sample size was not reported.</td>
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<td>Outcome Measures • Activities questionnaire: Effect of vision loss on daily functioning, including shopping, socializing, and traveling • Expectations questionnaire: Expected performance on activities such as traveling, taking into account vision loss • Self-report questionnaire: Visual performance on routine tasks such as reading mail and writing letters.</td>
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<td>N = 187 participants with AMD recruited from low vision clinics at two university-affiliated hospitals in Sweden</td>
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<td>Both groups showed an increase in perceived security at 4 mo in “reading an article in your newspaper,” “threading a needle and sewing a button on,” and “following the news on your TV.” The intervention group experienced significantly higher perceived security at 4 mo in “dialing on your phone,” “finding your way in your local shop,” “knowing your turn in the queue,” and “writing a memo to yourself.”</td>
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<td>Health education group $n = 93$ Control group $n = 94$</td>
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<td>Median age = 79 yr; range = 66–94 yr</td>
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<td>Interventionist Occupational therapist</td>
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<td>Elliott &amp; Kuyk (1994)</td>
<td>To determine the impact of personal adjustment training on perception of quality of life</td>
<td>Level III One group, nonrandomized design</td>
<td>Intervention Personal adjustment training for an average of 55 days at a residential program</td>
<td>Significant improvements were seen in several areas, including social engagement, hobbies, and activities that use fine motor skills.</td>
<td>The small sample size and lack of discussion of the intervention limit the ability to replicate the study and determine the causal factor of change.</td>
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<td>N = 40 veterans with vision loss</td>
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<td>$M$ age = 64 yr; range = 36–85 yr</td>
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<td>Interventionist O&amp;M specialist</td>
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| Hinds et al. (2003) | To investigate the impact of an interdisciplinary low vision service on quality of life and participation in daily activities | Level III  
Nonrandomized pretest–posttest  
N = 71 participants (68% with AMD) from two low vision clinics in Scotland  
Age: 78% >71 yr; range: 34–86 yr  
Interventionists: Team including ophthalmologist, ophthalmic nurse, social worker, and rehabilitation worker | Intervention  
Interdisciplinary low vision service consisting of diagnosis, referral, blind or partially sighted registration, refraction and prescription of low vision aids, home visits, education, support, and counseling  
Outcome Measures  
• MLVQ: Performance, difficulty, and importance of 19 daily activities  
• LVA measure: Use and helpfulness of prescribed LVAs during MLVQ tasks | The number of people who reported reading ordinary print books, newspapers, or magazines increased significantly ($p = .049$).  
The number of people who reported reading large-print books and newspapers decreased significantly ($p = .015$).  
Nonsignificant improvements were seen in sewing and knitting, special hobbies, watching TV, and reading telephone numbers.  
75% reported using prescribed LVAs during the past month while reading ordinary print books, newspapers, or magazines or watching TV.  
More than half found the LVAs useful for these tasks. | No control group was used. |
| La Grow (2004)    | To determine the effectiveness of comprehensive low vision services vs. a mix of services currently available in promoting independent living skills for older adults with age-related vision loss | Level II  
Nonrandomized controlled trial  
N = 186 participants recruited from four low vision clinics in New Zealand  
Intervention group n = 93  
Control group n = 93  
M age = 80.6 yr; range = 65–95 yr  
Interventionist: Not stated | Intervention  
Vision examination; prescription for, loan of, and training in use of optical and nonoptical aids; follow-up and repeated visits if necessary  
Control  
Typically available services—i.e., assessment and instruction in independent living skills, O&M, communication, and recreational and leisure activities  
Outcome Measure  
Adapted version of Elliott and Kuyk’s (1994) measure of functional and psychosocial outcomes of blind rehabilitation | No significant differences were found between groups at posttest or follow-up. | The article does not provide results for the individual items in the outcome measure, so individual changes for each item of interest cannot be determined. |
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| McCabe, Nason, Demers Turco, Friedman, & Seddon (2000) | To determine whether vision rehabilitation increases patients’ functional ability and whether involving families in intervention produces more successful outcomes | Level I RCT N = 97 participants (64% with macular degeneration) Intervention group n = 49 Control group n = 48 Median age = 76 yr; range = 19–91 yr Interventionists Optometrist, occupational therapist, and social worker | Intervention  
Family-focused care: Standard vision rehabilitation (assessment; support services; and training in use of remaining vision, optical and nonoptical aids, and adaptive techniques) plus involvement of family members in all stages of intervention, education of family members about the ophthalmic condition and rehabilitation process, and instruction of family members in coping strategies to adapt to vision loss  
Control  
Individual care: Standard vision rehabilitation | A statistically significant decrease was found for both groups in dependency and difficulty in performing tasks. No significant differences were found between groups. | The sample size was not large enough to achieve statistical power. |
| Pankow, Luchins, Studebaker, & Chettleburgh (2004) | To determine whether a vision rehabilitation program would improve independent functioning in older adults with visual impairments | Level I RCT N = 30 participants (14 with AMD) Intervention group n = 15 Control group n = 15 M age = 75 yr; range = 65–90 yr Interventionists Occupational therapist, O&M specialist, rehabilitation teacher, and others | Intervention  
Customized treatment depending on participants’ personal goals for rehabilitation consisting of rehabilitation teaching, O&M training, driving rehabilitation, and occupational therapy  
Control  
Wait list for vision rehabilitation | The treatment group had significantly higher scores than the control group on the FIMBA Living Skills Inventory. No significant difference was found in scores on the FIMBA Orientation and Mobility section. | The sample size was small, and no mention was made of whether the study was adequately powered. |
|                                    |                                                                                   |                                                                                          | Outcome Measures  
• FIMBA: Ability to perform living skills and O&M skills independently  
• Goal attainment: Participation in goals (e.g., hobbies, reading, cooking) |                                                                                          | Participants and evaluators were not blind to the composition of groups. |
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| Reeves, Harper, & Russell (2004) | To determine whether people who received both supplementary home-based rehabilitation and conventional rehabilitation were better able to perform everyday activities than people who received only conventional rehabilitation | Level I RCT N = 226 participants with AMD recruited from the Manchester Royal Eye Hospital, England  
ELVR intervention group n = 75  
CLVR control group n = 76  
CELVR control group n = 75  
Median age = 81 yr  
Interventionist Rehabilitation officer with training in vision rehabilitation and 5 yr of experience | Intervention  
ELVR: CLVR plus home-based low vision rehabilitation visits consisting of advice on, demonstration of, and supply of LVAs and support  
Controls  
CLVR group: Setting and reappraisal of goals, demonstration of LVAs, discussion of ways to enhance vision, literature about diagnosis, and referrals and follow-up  
CELVR group: CLVR and home-based visits during which participant and practitioner discuss problems and concerns and participation in daily and leisure activities  
Outcome Measure  
MLVQ: self-rated restriction in everyday activities because of visual impairment, duration of LVA use | No significant differences were found between groups in the self-rated restriction score at 12 mo.  
No significant differences were found between groups in duration of LVA use | Some patients were unmasked to the researchers during assessment. |
| Rovner & Casten (2008)      | To determine whether problem-solving treatment (PST) compared with usual care would reduce depression and prevent loss of participation in valued activities for people with AMD | Level I RCT N = 206 participants with AMD and without clinical depression  
Intervention group n = 105  
Control group n = 101  
Age: >64 yr  
Interventionist Nurse or counselor trained in PST | Intervention  
6 in-home sessions of PST, an approach that teaches problem-solving skills through identifying the problem; goal setting; brainstorming, choosing, and implementing solutions; and evaluating outcomes  
Control  
Usual care  
Outcome Measure  
NEI VFQ–17: Difficulty participating in daily tasks such as reading the newspaper and engaging in hobbies, value of each activity | Fewer participants in the intervention group gave up participation in valued activities (23.2% of intervention group vs. 37.4% of control group at 12 mo; 30.5% vs. 44.2% at 6 mo). | Limited information is provided about demographics (e.g., no mention of gender, race, mean age of group) and study procedures (e.g., no mention whether researchers were blind to groups).  
No explanation is provided of what "usual care" consisted of for the control group.  
Information is limited on whether the study controlled for additional services received by participants and other confounding factors. |
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<td>Scanlan &amp; Cuddeford (2004)</td>
<td>To determine the outcomes of a low vision service that provided an extended period of education in using low vision devices, specifically microscopes, for people with AMD</td>
<td>Intervention Five 1-hr educational sessions by a vision rehabilitation nurse individualized to participant needs and focused on reading skills</td>
<td>The NEI VFQ–25 showed a statistically significant difference between groups at Time 3 (follow-up at Week 12), when the experimental group rated their eyesight as better, expressed less difficulty reading smaller print (newspapers, telephone books), expressed less difficulty seeing how others reacted to things they said, and perceived that they needed less help from others.</td>
<td>Sample size was small.</td>
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<td>Shuttleworth, Dunlop, Collins, &amp; James (1995)</td>
<td>To measure the effectiveness of an integrated low vision rehabilitation program using LVAs in improving function and satisfaction for people with vision loss over a 2-yr period</td>
<td>Intervention Functional assessment, individualized counseling, advice and training in use of LVAs and visual techniques, and referrals to social services; loan of most appropriate LVA to participants</td>
<td>Most participants used LVAs for near vision tasks, including reading correspondence (83% at 1 yr, 86% at 2 yr) and pleasure reading (73% and 64%). Some participants used LVAs for writing (39% at 1 yr and 25% at 2 yr) and hobbies (27% and 16%).</td>
<td>No control group was used to provide comparison data. Limited baseline data were presented.</td>
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