

E.5.2 The effectiveness of support strategies for people with impairment and age-related macular degeneration (AMD)

RQ9: What is the effectiveness of support strategies for people with visual impairment and AMD (for example reablement services and strategies for optimising existing visual performance)?

Bibliographic reference	Cheong A M; Lovie-Kitchin J E; Bowers A R; Brown. Short-term in-office practice improves reading performance with stand magnifiers for people with AMD. Optometry and vision science 82(2). 2005
Country/ies where the study was carried out	Australia
Study type	Comparison study
Aim of the study	To investigate the effect of home-based large print reading practice on reading performance when stand magnifiers (STMs) are first prescribed.
Study dates	Published in 2005
Source of funding	Supported by a Queensland University of Technology Postgraduate Research Scholarship.
Sample size	32 selected, and 25 included in the study
Length follow-up	Up to 20 weeks
Inclusion criteria	People with low vision because of AMD People whose monocular near visual acuity in the better eyes was equal to or better than 1.4logMAR (15 EDTRS letter, 6/150)
Exclusion criteria	Not reported
Patient characteristics	Age, mean (SD) years: 80.3 (4.4) Gender, M, %: not reported Distance visual acuity (logMAR): Control group: 0.18, Large print practice group (p1): .026, Large print with reduced field of view practice (p2): 0.30 Participants were generally in good health with no cognitive problem that might affect their compliance with home-training instructions.

Bibliographic reference	Cheong A M; Lovie-Kitchin J E; Bowers A R; Brown. Short-term in-office practice improves reading performance with stand magnifiers for people with AMD. Optometry and vision science 82(2). 2005					
Details	<p>A full optometric examination was conducted for each participant before the experiment to ensure that his/her distance spectacle prescription provided best vision.</p> <p>Participants in practice groups were instructed to read large print book at home at least 10min.day for 2 weeks. Participants recorded on the large print book the number of pages read each day in an attempt to verify compliance with the reading practice.</p>					
Intervention	<p>Participants were assigned to one of 3 experimental groups according to age and near visual acuity to ensure that the distribution of these variables were not significant different among groups.</p> <p>Participants in the control group received no reading practice at home but repeated reading measure with and without STM's were taken in the laboratory at week 0,1, and 2 before the STM's were supplied for home use.</p> <p>Participants in the practice groups (P1 and P2) were instructed to do 10min/day of large print reading practice at home. P2 participants were additionally requested to read the large print through a restricted field of view. Repeated reading measure with and without STM's were taken in the laboratory at week 0,1, and 2 before the STM's were supplied for home use. The STM's were supplied at week 2 to all the participants for reading small print, at that point, large print reading practice ceased. Further reading measures with STM's were made at week 4,8 and 20.</p>					
Results		P1 (home training large print reading)	P2 (home training large print reading with additional request to read with a restrict field of view)	Control (no reading practice)	Effect (95%CI)	
	Number of participants	10	9	6	P1 vs control	P2 vs control
	Relative log reading rate (wpm), 2 weeks	0.08 (0.05, 0.12)	0.065 (0.03, 0.1)	0.025 (-0.02, 0.07)	0.06 (-0.06, 0.17)	0.04 (-0.07, 0.15)
	Relative log reading rate (wpm), 8 weeks	0.12 (0.08, 0.16)	0.1 (0.06, 0.14)	0.08 (0.03, 0.13)	0.04 (-0.09, 0.17)	0.02 (-0.10, 0.14)

Bibliographic reference						
Cheong A M; Lovie-Kitchin J E; Bowers A R; Brown. Short-term in-office practice improves reading performance with stand magnifiers for people with AMD. <i>Optometry and vision science</i> 82(2). 2005						
Relative log reading rate (wpm), 20 weeks	0.135 (0.08, 0.19)	0.05 (-0.01, 0.11)	0.06 (-0.01, 0.13)	0.08 (-0.09, 0.25)	-0.01 (-0.19, 0.17)	
Exponentials relative log reading rate, effect between treatment and control						
	Effect (95%CI) MD					
	P1 vs control			P2 vs control		
Relative log reading rate (wpm), 2 weeks	1.06 (0.94, 1.19)			1.04 (0.93, 1.16)		
Relative log reading rate (wpm), 8 weeks	1.04 (0.40, 1.18)			1.02 (0.90, 1.15)		
Relative log reading rate (wpm), 20 weeks	1.08 (0.91, 1.28)			0.99 (0.83, 1.18)		
Missing data handling/loss to follow up	Not reported					
Was allocation adequately concealed?	Unclear					
Was knowledge of the allocated intervention adequately prevented during the study?	Unclear					

Bibliographic reference	Cheong A M; Lovie-Kitchin J E; Bowers A R; Brown. Short-term in-office practice improves reading performance with stand magnifiers for people with AMD. Optometry and vision science 82(2). 2005
Was the allocation sequence adequately generated?	Unclear
Was the study apparently free of other problems that could put it at a high risk of bias?	Unclear
Were incomplete outcome data adequately addressed?	Unclear
Are reports of the study free of suggestion of selective outcome reporting?	Unclear

Bibliographic reference	Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. Disability & Rehabilitation 26 (7), 2004.
Country/ies where the study was carried out	Sweden
Study type	RCT
Aim of the study	To investigate the impact of the health education programme on perceived security in the performance of daily activities.
Study dates	Published in 2004
Source of funding	Not reported
Sample size	229 participants, and 98 person dropout
Length follow-up	28 months
Inclusion criteria	People aged 65 years or older Living at home

Bibliographic reference	Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. Disability & Rehabilitation 26 (7), 2004.
	Diagnosed with AMD A distance VA of better eye with BCVA no lower than 0.1 (VA was tested with a letter chart graded 0.1 to 1.0 at distance of 5 m with the person's own glasses and with best refraction).
Exclusion criteria	Not reported
Patient characteristics	Age, mean (SD) years: 78 Gender, M, %: 26% Visual acuity: 0.3 (range 1.0-0.1) Participants living alone, %: 60% Participants receiving public transportation service: 37% Participants receiving social service: 18% Participants reported perceived good health: 86%
Details	The participants were randomly assigned, according a random number table, either to the health education programme, or to an individual intervention programme that was standard at the low vision clinic. The occupational therapists that collected the data were not blinded to the composition of the groups but were not involved in the programme. Assessment at baseline at the 28 months follow-up were made when participants attended the low vision clinic. The study procedure did not differ between the programs. Independent registered occupational therapists interviewed the participants according to a structured protocol that consisted of questions about marital status, living arrangements, social service, and health problems. An assessment of perceived security in performing daily occupations also was completed; details about this assessment follow in the next section. An optometrist made the optical evaluation during the visit. Visual acuity was tested with a letter chart (Monoyer-Granström, Kifa), graded .1 to 1.0 at a distance of 5 m, with the person's own eyeglasses and with best refraction. The instrument for measuring the primary outcome—perceived security in performing daily occupations was developed for the purpose of evaluating the health education program. The instrument is a questionnaire that consists 29 items divided into 7 performance areas: Meals, self-care and care of clothing, communication, cleaning, mobility, shopping, and financial management.

Bibliographic reference	Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. Disability & Rehabilitation 26 (7), 2004.				
	Perceived confidence in performing each task is rated on a 4-point ordinal scale (very insecure, insecure, quite secure, secure). The participants completed the questionnaire after instructions from the occupational therapists.				
Intervention	<p>Intervention with the health education program.</p> <p>Groups of 4 to 6 participated in the health education program for a total of 20 formed consecutively during the study period. The intervention period for each group was 8 weeks, and the groups met once a week for 2 hr.</p> <p>The groups were led by occupational therapists, and each group always had the same leader. The therapists were experienced in leading groups and trained in the methodology and theoretical foundations of the program before the start of the study. The occupational therapist provided information and skills training based on the occupational categories and guided and encouraged the participants in the learning process. Other health professionals, such as an ophthalmologist, an optometrist, a low vision therapist, and a light expert, were invited to give information.</p> <p>The information and the skills training were derived from strategies elderly persons with age-related macular degeneration use to continue to perform daily occupations. The strategies were presented within the program as a problem-solving model, and the participants were taught to use the model as a way of thinking when performing daily occupations. A booklet containing the information given by health professionals as well as information about occupational categories was used in the health education program. The participants were asked to prepare themselves before participating in the sessions by reading relevant chapters and formulating questions.</p> <p>Individual intervention programme</p> <p>The individual intervention program was the standard intervention for the target group at the low vision clinics. The participants were provided with optical aids with the aim to improve reading and near and distance viewing. Hand and stand magnifiers as well as eyeglasses for reading were prescribed. The participants were given information about the disease if they requested it. The individual intervention measures were carried out by an occupational therapist with special training in low vision. The individual intervention typically included one to two 1-hr sessions at the clinic, with follow-up phone calls over a 4-week period.</p>				
Results		Relative position (95%CI)	Relative variance		
		Health education programme	Individual education programme	Health education programme	Individual education programme
	Median	0.25 (-0.09, 0.47)	-0.14 (-0.32, 0.15)	0.16 (0.04, 0.32)	0.1 (0.05, 0.46)

Bibliographic reference		
Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. <i>Disability & Rehabilitation</i> 26 (7), 2004.		
	Significant difference in perceived security in performance daily activities between groups	Non-significant difference in perceived security in performance daily activities between groups
Meal	pouring coffee/tea for yourself	Finding food on the plate
	finding utensils and supplies in cabinets	Finding things on the table while eating
	measuring ingredients for making coffee	Slicing bread
	determining if vegetables are clear	
	managing the knobs on the stove	
	determining if the dishes are clear	
Self-care and care of clothing	cutting/filing your nails	Treading a needle and sewing on a button
	discovering if your clothes are stained	
Communication	writing a memo to yourself	Reading an article in your newspaper
		Following the news on your TV

Bibliographic reference		
Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. <i>Disability & Rehabilitation</i> 26 (7), 2004.		
		Dialling on your phone
Clean	dusting your apartment	Vacuuming your apartment
Mobility	going to your local shop	
	using a pedestrian traffic light crossing	
	distinguishing irregularity in the street	
Financial management	Knowing your turn in the queue	Reading a bank statement
	Filing in a withdrawal form	
Shopping		Finding your way in your local shop
		Picking the right product
		Knowing the price on the products
		Managing money and paying
	Relative position (RP), intervention group=0.27 (0.10, 0.43)	

Bibliographic reference	Eklund K ; Sonn U ; Dahlin-Ivanoff S. Long-term evaluation of a health education programme for elderly persons with visual impairment. A randomized study. Disability & Rehabilitation 26 (7), 2004.	
		Individual group=-0.15 (-0.31, 0)
Missing data handling/loss to follow up	98 drop out from the participations	
Was allocation adequately concealed?	Unclear	
Was knowledge of the allocated intervention adequately prevented during the study?	Masking technique was not applied	
Was the allocation sequence adequately generated?	Yes	
Was the study apparently free of other problems that could put it at a high risk of bias?	No	
Were incomplete outcome data adequately addressed?	Drop outs did not differ from the participants at baseline	
Are reports of the study free of suggestion of selective outcome reporting?	Yes	
Other	There was an early publication on this trial reporting 4 month follow up (Dahlin Ivanoff 2002).	

Bibliographic reference	Eklund K ; Sjostrand J ; Dahlin-Ivanoff S. A randomized controlled trial of a health-promotion programme and its effect on ADL dependence and self-reported health problems for the elderly visually impaired. Scandinavian Journal of Occupational Therapy 15 (2): 68-74. 2008.
Country/ies where the study was carried out	Sweden
Study type	RCT
Aim of the study	To compare the differences between an activity-based health promotion programme and an individual programme concerning their effect on activities of daily living (ADL) dependence and self-reported health.
Study dates	Published in 2008
Source of funding	Not reported
Sample size	229 participated, 81 lost to follow-up, and 131 included in the analysis
Length follow-up	28 months
Inclusion criteria	<p>People with AMD as the primary diagnosis</p> <p>People with a distance visual acuity of the better than with best correction ≥ 0.1</p> <p>65 years or older</p> <p>Living at home</p> <p>Being capable of participation in group discussion</p>
Exclusion criteria	Not reported
Patient characteristics	<p>Age, mean (SD) years: 78</p> <p>Gender, M, %: 26%</p> <p>Visual acuity: 0.3 (range 1.0-0.1)</p> <p>Participants living alone, %: 60%</p> <p>Participants receiving public transportation service: 37%</p> <p>Participants receiving social service: 18%</p> <p>Participants reported perceived good health: 86%</p>

Bibliographic reference	Eklund K ; Sjostrand J ; Dahlin-Ivanoff S. A randomized controlled trial of a health-promotion programme and its effect on ADL dependence and self-reported health problems for the elderly visually impaired. Scandinavian Journal of Occupational Therapy 15 (2): 68-74. 2008.					
Details	<p>The participants were randomly assigned, according a random number table, either to the health promotion programme, or to an individual intervention programme that was standard at the low vision clinic.</p> <p>The occupational therapists that collected the data were not blinded to the composition of the groups but were not involved in the programme.</p>					
Intervention	<p>The health-promotion programme</p> <p>This programme was carried out with groups of 4 to 6 persons. A total of 20 formed consecutively during the study period. The intervention period for each group was 8 weeks, and the groups met once a week for 2 hr.</p> <p>The content of the programme included 8 occupation themes: Self-care; meals; communications, orientation and mobility; food preparation; shopping; financial management, and cleaning.</p> <p>Health professional such as ophthalmologist, optician, low vision therapies and a lightening expert provided information. The optician also prescribed glasses. Occupational therapists led the groups, and each group had the same leader.</p> <p>Individual intervention programme</p> <p>The individual intervention program was the standard intervention for the target group at the low vision clinics. Magnifiers and reading glasses were prescribed and introduced at the clinic and were taken home directly for practice application. Information about lighting, mainly for reading was provided. If requested, the participants also received information about the disease. The individual programme measures were carried out by occupational therapies with special training in low vision. The individual intervention typically included one to two 1-hr sessions at the clinic, with follow-up phone calls over a 2-4-week period. An optician therapists prescribed glasses and the occupational therapists prescribed low-vision aids.</p>					
Results		Baseline		28 months		Effect (95%CI), at 28 months
		Health promotion programme (n=62)	Individual programme (n=69)	Health promotion programme (n=62)	Individual programme (n=69)	

Eklund K ; Sjostrand J ; Dahlin-Ivanoff S. A randomized controlled trial of a health-promotion programme and its effect on ADL dependence and self-reported health problems for the elderly visually impaired. <i>Scandinavian Journal of Occupational Therapy</i> 15 (2): 68-74. 2008.					
Bibliographic reference					
ADL step, n(%)					
0	26 (42)	33 (48)	24 (39)	15 (22)	1.78 (1.03, 3.08)
1	19 (31)	18 (26)	14 (23)	15 (22)	1.04 (0.55, 1.97)
2	8 (13)	5 (7)	8 (13)	16 (23)	0.56 (0.26, 1.21)
3	7(11)	10 (15)	9 (15)	13 (19)	0.77 (0.35, 1.68)
4	2 (3)	3 (4)	4 (7)	5 (7)	0.89 (0.25, 3.17)
5			2 (3)	2 (3)	1.11 (0.16, 7.67)
6			1 (2)	1 (1)	1.11 (0.07, 17.42)
7				0 (0)	
8				1 (1)	
9				1 (1)	
General health (SF-36)					

Eklund K ; Sjostrand J ; Dahlin-Ivanoff S. A randomized controlled trial of a health-promotion programme and its effect on ADL dependence and self-reported health problems for the elderly visually impaired. <i>Scandinavian Journal of Occupational Therapy</i> 15 (2): 68-74. 2008.					
Bibliographic reference					
Excellent	13 (21)	10 (15)	6 (10)	1 (1)	6.68 (0.83, 53.93)
Poor/fairly poor	41 (66)	48 (70)	42 (68)	40 (58)	1.17 (0.90, 1.52)
Bad	5 (8)	10 (15)	13 (21)	26 (38)	0.56 (0.31, 0.98)
Health problems					
0	8 (13)	5 (7)	7 (11)	1 (1)	7.79 (0.99, 61.55)
1-2	32 (52)	38 (55)	42 (68)	40 (58)	1.17 (0.90, 1.52)
3-4	15 (25)	20 (29)	12 (19)	21 (30)	0.64 (0.34, 1.18)
5 or more	7(11)	6 (9)	1 (2)	7 (10)	0.16 (0.02, 1.26)
Visual acuity					
1.0-0.8	2 (3)	0	2 (3)	2 (3)	1.11 (0.16, 7.67)
0.7-0.5	9 (15)	18 (26)	4 (6)	8 (12)	0.56 (0.18, 1.76)
0.4-0.2	40 (65)	41 (59)	23 (37)	28 (41)	0.91 (0.59, 1.41)

Eklund K ; Sjostrand J ; Dahlin-Ivanoff S. A randomized controlled trial of a health-promotion programme and its effect on ADL dependence and self-reported health problems for the elderly visually impaired. Scandinavian Journal of Occupational Therapy 15 (2): 68-74. 2008.						
Bibliographic reference	0.1	10 (16)	10 (15)	14 ((23)	16 (23)	0.97 (0.52, 1.83)
	Finger counting			19 (31)	14 (20)	1.51 (0.83, 2.75)
Missing data handling/loss to follow up	81 lost to follow-up					
Was allocation adequately concealed?	Unclear					
Was knowledge of the allocated intervention adequately prevented during the study?	Masking technique was not applied					
Was the allocation sequence adequately generated?	Yes					
Was the study apparently free of other problems that could put it at a high risk of bias?	No					
Were incomplete outcome data adequately addressed?	Drop outs did not differ from the participants at baseline					
Are reports of the study free of suggestion of selective outcome reporting?	Yes					

Bibliographic reference	Parodi M B; Toto L ; Mastropasqua L ; Depollo M ; Ravalico G. Prismatic correction in patients affected by age-related macular degeneration. Clinical Rehabilitation 18 (7): 828-32. 2004
Country/ies where the study was carried out	Italy
Study type	RCT
Aim of the study	To evaluate the effectiveness and the tolerance of prismatic correction in improving visual function in patients affected by advanced AMD
Study dates	Published in 2004
Source of funding	Not reported
Sample size	28
Length follow-up	Up to 360 days
Inclusion criteria	People with advanced AMD, presented with bilateral exudative AMD at an advanced stage Visual acuity better than 6/19 Stable visual acuity for at least one year Being able to consent their participation
Exclusion criteria	Presence of any other ocular disease able to impair visual function; Presence of disorder causing choroidal neovascularisation other than AMD; Previous laser photocoagulation
Patient characteristics	Age, mean (SD) years: treatment group: 72 years; control group: 71 years Gender, M, %: not reported Visual acuity (logMAR): treatment group: 1.06 logMAR; control group: 1.06 logMAR
Details	The variation of visual acuity during the study period was evaluated using the analysis of variance for repeated measurement.
Intervention	Patients were randomly assigned to the treatment or control group, following a computer generated list using a block randomisation. The treatment group received spectacles providing prismatic correction. A prism of low power (4-7 prismatic dioptres) placed in front of the better eyes was rotated to the position of clearest vision.

Bibliographic reference	Parodi M B; Toto L ; Mastropasqua L ; Depollo M ; Ravalico G. Prismatic correction in patients affected by age-related macular degeneration. <i>Clinical Rehabilitation</i> 18 (7): 828-32. 2004			
	Visual acuity in control group was assessed in the same way, using the best optical correction (without prismatic correction) that had been prescribed at baseline.			
Results	VA (logMAR)	Prismatic correction (n=14)	Control (without prismatic correction) (n=14)	Effect (95%CI)
	Baseline	1.062857 (1.01, 1.10)	1.084285714 (1.02, 1.13)	-0.02 (-0.16, 0.12)
	1 day	0.89 (0.81,0.91)	1.08 (1.01, 1.13)	-0.19 (-0.34, -0.04)
	90 days	0.80 (0.77,0.85)	1.12 (1.09,1.14)	-0.32 (-0.41, -0.23)
	180 days	0.71 (0.68, 0.79)	1.10 (1.08, 1.13)	-0.39 (-0.51, -0.27)
	360 days	0.69 (0.65, 0.73)	1.09 (1.02,1.10)	-0.40 (-0.52, -0.28)
	Missing data handling/loss to follow up	2 participants in treatment groups lost to follow-up		
Was allocation adequately concealed?	Unclear			
Was knowledge of the allocated intervention adequately prevented during the study?	Unclear			
Was the allocation sequence adequately generated?	Yes			

Bibliographic reference	Parodi M B; Toto L ; Mastropasqua L ; Depollo M ; Ravalico G. Prismatic correction in patients affected by age-related macular degeneration. Clinical Rehabilitation 18 (7): 828-32. 2004
Was the study apparently free of other problems that could put it at a high risk of bias?	Unclear
Were incomplete outcome data adequately addressed?	Yes
Are reports of the study free of suggestion of selective outcome reporting?	Yes

Bibliographic reference	Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004
Country/ies where the study was carried out	UK
Study type	RCT
Aim of the study	To compare the effectiveness of three models of low vision rehabilitation for people with age related macular degeneration (AMD) referred for low vision rehabilitation (LVR): (a) an enhanced low vision rehabilitation model (ELVR) including supplementary home based low vision rehabilitation; (b) conventional low vision rehabilitation (CLVR) based in a hospital clinic; (c) CLVR with home visits that did not include rehabilitation (CELVR), intended to act as a control for the additional contact time with ELVR.
Study dates	Published in 2004
Source of funding	The trial was funded by North West Regional Health Authority (research grant RDO/18/39); Manchester Royal Eye Hospital General Research endowment fund.
Sample size	226 randomised, and 194 completed trial
Length follow-up	12 months
Inclusion criteria	People were eligible for the trial if they were newly referred to the low vision clinic at Manchester Royal Eye Hospital with a primary diagnosis of AMD.

Bibliographic reference	Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004
	Participants had to have Snellen visual acuity worse than 6/18 (.0.5 logMAR) in both eyes and equal to or better than 1/60 ((1.8 logMAR) in the “better” eye.
Exclusion criteria	People were ineligible if they were living in a residential or nursing home, were suffering from mental illness or dementia, or were not proficient in English.
Patient characteristics	Age, median (IQR) years: CLVR group: 81 (77-84) years; ELVR group: 80 (76-85) years; CELVR group: 83 (78-86) years Gender, M, % CLVR group: 37%; ELVR group: 36%; CELVR group: 28% Living alone, % CLVR group: 42%; ELVR group: 52%; CELVR group: 60% Median distance visual acuity (logMAR): CLVR group: 0.81 (0.48-1.00); ELVR group: 0.90 (0.56-1.08); CELVR group: 0.62 (0.44-1.00)
Details	Participants allocated to CLVR received a clinical low vision assessment at the hospital provided by a team of qualified optometrists, a dispensing optician, and a limited number of preregistration optometrists working under supervision. As a pragmatic trial, assessments were carried out as part of standard hospital care for people referred to the low vision clinic. While general guidelines were suggested, practitioners did not have to adhere to a strict assessment protocol, although they were asked to complete data sheets requesting information on diagnosis, co-morbidity, visual requirements, unaided vision, performance with existing LVAs (if any), refraction, corrected acuities, contrast sensitivity, and performance with new LVAs. Participants allocated to ELVR received all components of CLVR but, in addition, received additional low vision training at home. A rehabilitation officer, with specific training in the rehabilitation of people with visual impairment and 5 years’ experience in this role, provided the home visits. Participants allocated to CELVR also received all components of CLVR but, in addition, were visited at home by one of four community care workers from Age Concern. Community care workers do not have training about visual impairment or any formal training in low vision. Hence, they did not provide any specific LVR. The community care workers did not have any formal link with the hospital through a reporting system and did not visit the low vision clinic.
Intervention	Conventional low vision rehabilitation (CLVR)

Bibliographic reference	Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004
	<p>Check a patient's understanding of the diagnosis and prognosis Discuss needs/visual requirements and set initial goals Assess vision (including sight test and near acuities) Re-appraise goals Demonstrate specific LVAs Explain use and handling of prescribed LVAs Advise about lighting and other methods of enhancing vision Provide large print literature about diagnosis, vision enhancement, use of LVAs and other services Refer to other services where necessary (e.g., to a hospital support worker) Arrange for follow ups, usually at 3 months with additional appointments being offered if necessary</p> <p>Enhanced low vision rehabilitation (ELVR) As for conventional LVR, plus up to three home visits (at approximately 2 weeks, 4–8 weeks, and at 4–6 months after the first low vision assessment) by a trained rehabilitation officer to: advise on use of LVA(s): assess patterns of LVA use (e.g., tasks attempted, frequency and duration of use) and difficulties experienced in using LVAs; demonstrate and supply alternative or additional LVAs, if appropriate; provide wider patient support—e.g., direct patients to relevant support and welfare services</p> <p>Controlled for additional contact time in enhanced low vision rehabilitation (CELVR) As for conventional LVR, plus up to three home visits (at approximately 2 weeks, 4–8 weeks, and at 4–6 months after the first low vision assessment) by a community care worker to: discuss ability to cope with daily activities discuss ability to take part in leisure activities discuss other problems or topics raised by participant</p>

Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004					
Bibliographic reference					
Results					
	Enhanced low vision rehabilitation (ELVR)	Controlled for additional contact time in enhanced low vision rehabilitation (CELVR)	Conventional low vision rehabilitation (CLVR)	Effect (95%CI) ELVR vs CLVR	Effect (95%CI) CELVR vs CLVR
At 12 month					
No.	64	70	60		
Vision specific QoL (VCM), median (IQR)	2.2 (1.7, 3.0)	2.3 (1.5, 2.9)	2.4 (1.8,3.1)	0.06 (-0.17, 0.30)	-0.05 (-0.29, 0.18)
SF-36 (physical health), median (IQR)	26 (14,40)	28 (17,41)	38 (24,44)	-6.05 (-10.2, -1.91)	-2.27 (-6.29, 1.76)
SF-36 (mental health), median (IQR)	53 (41,57)	53 (45,57)	52 (43,59)	-4.04 (-7.44, -0.65)	-1.48 (-4.69, 1.73)
Nottingham adjustment scale (NAC)					
Locus of control	18 (14,20)	18 (16,20)	18 (14,20)	-0.42 (-1.68, 0.83)	0.02 (-1.21, 1.25)

Bibliographic reference	Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004				
Acceptance	36 (29,42)	38 (29,42)	38 (27,41)	-0.36 (-3.04,2.32)	0.36 (-2.24, 2.97)
Attitude	20 (17,24)	19 (17,25)	20 (15,23)	0.22 (-1.34, 1.77)	0.25 (-1.27, 1.77)
Self-efficacy	28 (23,34)	29 (24,34)	28(24,33)	-0.44 (-2.88, 2.00)	0.44 (-1.91, 2.79)
Manchester low vision questionnaire (MLVQ)					
Self rated restriction score	0.6 (0.4, 0.7)	0.4 (0.3,0.6)	0.6 (0.4, 0.70)	0.04 (-0.02, 0.11)	-0 (-0.06, 0.06)
Using at least one low vision aid, n(%)	58 (90.6%)	67 (95.7%)	57 (95.5%)	0.95 (0.87, 1.05)	1.01 (0.93, 1.09)
Using low vision aid daily, n(%)	47 (73.4%)	51 (72.9%)	42 (70.0%)	1.05 (0.84, 1.31)	1.04 (0.84, 1.30)
Using low vision aid for ≥5 minutes, n(%)	22 (34.4%)	16 (22.9%)	18 (30.0%)	1.15 (0.69, 1.92)	0.76 (0.43, 1.36)
Measured task performance, no. (%)					
Read one or both use by dates	39 (61.9%)	54 (77.1%)	39 (66.1%)	0.94 (0.72, 1.23)	1.19 (0.95, 1.49)
Read drug name	30 (46.9%)	43 (61.4%)	32 (55.2%)	0.88 (0.62, 1.25)	1.15 (0.85, 1.56)

Bibliographic reference	Reeves B C; Harper R A; Russell W B. Enhanced low vision rehabilitation for people with age related macular degeneration: a randomised controlled trial. British Journal of Ophthalmology 88 (11): 1443-9. 2004
Missing data handling/loss to follow up	32 lost to follow-up of 3 groups
Was allocation adequately concealed?	Allocation codes were generated by computer before the start of the study by BCR (who took no part in recruitment, data collection, or the care of patients) and were concealed in sealed opaque envelopes.
Was knowledge of the allocated intervention adequately prevented during the study?	Allocation codes were generated by computer before the start of the study by BCR (who took no part in recruitment, data collection, or the care of patients) and were concealed in sealed opaque envelopes. Eligible people were told about the study and were invited to participate by a large print letter. Those who agreed to participate gave written informed consent. At recruitment, an appointment was made for the initial home visit. RAH then randomised the participant by opening the next sealed envelope, keeping the allocation secret from the researcher who measured outcomes (WBR).
Was the allocation sequence adequately generated?	Allocation was randomised and blocked using blocks of unequal length
Was the study apparently free of other problems that could put it at a high risk of bias?	No
Were incomplete outcome data adequately addressed?	Yes
Are reports of the study free of suggestion of selective outcome reporting?	Yes

Bibliographic reference	Smith H J; Dickinson C M; Cacho I ; Reeves B C; Harper R A. A randomized controlled trial to determine the effectiveness of prism spectacles for patients with age-related macular degeneration. Archives of Ophthalmology 123 (8): 1042-50. 2005.
Country/ies where the study was carried out	UK
Study type	RCT

Bibliographic reference	Smith H J; Dickinson C M; Cacho I ; Reeves B C; Harper R A. A randomized controlled trial to determine the effectiveness of prism spectacles for patients with age-related macular degeneration. Archives of Ophthalmology 123 (8): 1042-50. 2005.
Aim of the study	To determine the effectiveness of prism spectacle in people with AMD by relocating the retinal image.
Study dates	Published in 2005
Source of funding	Supported by the Health Foundation, London
Sample size	225 people
Inclusion criteria	<p>People with bilateral AMD</p> <p>People with visual acuity of at least 1/60 but no better than 6/18 in the better seeing eye</p> <p>Free of mental illness, dementia, and severe physical limitations</p> <p>Proficient in English and literate</p> <p>Not a resident in a hospital or a nursing home</p>
Exclusion criteria	Not reported
Patient characteristics	<p>Age, median (IQR) year: Custom group: 81 (77-85) years; Standard group: 81 (77-85) years; Placebo: 81 (76-86) years</p> <p>Gender, M, %: Custom group: 36%; Standard group: 32%; Placebo: 38%</p> <p>Median visual acuity better eye, logMAR (IQR): Custom group: 0.82 (0.62-1.12); Standard group: 0.92 (0.63-1.19); Placebo group: 1.00 (0.66-1.00)</p> <p>Living alone, % Custom group: 56%; Standard group: 51%; Placebo: 53%</p>
Details	Participants were allocated to groups using computer generated randomisation codes prepared in advance by one of researchers. Randomisation and the ordering of spectacles were performed by a principal investigator who had no contact with participants during the study. Participants were recruited by the trial optometrist and another investigator collected all outcome data at baseline and follow-up.
Intervention	Participants received 1 of the following 3 types of test spectacles:

Bibliographic reference	Smith H J; Dickinson C M; Cacho I ; Reeves B C; Harper R A. A randomized controlled trial to determine the effectiveness of prism spectacles for patients with age-related macular degeneration. Archives of Ophthalmology 123 (8): 1042-50. 2005.					
	<p>Custom, incorporating bilateral prisms to match participants' preferred power and base direction.</p> <p>Standard, incorporating standard bilateral prisms (6 prism dioptres base up for logMAR VA of 0.48-1.00 and 10 prism dioptres base up for logMAR VA of 1.02-1.68.</p> <p>Placebo, consisting of spectacles matched in weight and thickness to prism spectacles but without prism.</p>					
Results		Custom prisms group	Standard prisms group	Placebo	Effect1 (95%CI) Custom vs placebo	Effect (95%CI) Standard vs placebo
	No. of participants, 3 months follow-up	70	75	80		
	logMAR, ETDRS (SD)	0.88 (0.32)	0.89 (0.32)	0.95 (0.32)	-0.02 (-0.07, 0.02)	-0.02 (-0.06, 0.03)
	logMAR, critical print size	1.45 (0.26)	1.45 (0.26)	1.50 (0.24)	-0.04 (-0.10, 0.03)	-0.05 (-0.11, 0.01)
	Words per minutes	73 (54)	74 (53)	67 (52)	-2.70 (-10.35, 4.96)	1.39 (-6.09, 8.87)
	NEI-VFQ 25, self-assessed visual function	53 (16)	54 (17)	53 (15)	1.25 (-1.98, 4.47)	0.29 (-2.90, 3.49)
	Manchester low vision questionnaire, part 1 observed task performance	36 (12)	36 (14)	36 (12)	-0.72 (-2.30, 0.87)	0.45 (-1.11, 2.01)
	Manchester low vision questionnaire, part 2, activities of daily living	28 (4)	28 (5)	29 (4)	-0.14 (-0.67, 0.39)	-0.07 (-0.59, 0.45)
	Observed performance dependent on vision (OPTV)	48 (19)	50 (22)	49 (17)	-1.44 (-4.47, 1.59)	1.84 (-1.14, 4.81)

Bibliographic reference		Smith H J; Dickinson C M; Cacho I ; Reeves B C; Harper R A. A randomized controlled trial to determine the effectiveness of prism spectacles for patients with age-related macular degeneration. Archives of Ophthalmology 123 (8): 1042-50. 2005.					
	Activities of daily living (ADL)	46 (20)	49 (20)	48 (17)	-0.56 (-3.08, 1.97)	-0.10 (-2.59, 2.39)	
	Adjusted mean differences (using ANCOVA)						
Missing data handling/loss to follow up	18 lost to follow-up						
Was allocation adequately concealed?	Yes						
Was knowledge of the allocated intervention adequately prevented during the study?	Yes						
Was the allocation sequence adequately generated?	Yes						
Was the study apparently free of other problems that could put it at a high risk of bias?	Yes						
Were incomplete outcome data adequately addressed?	Yes						
Are reports of the study free of suggestion of selective outcome reporting?	Yes						

Bibliographic reference	Vukicevic Meri and Fitzmaurice Kerry. Eccentric viewing training in the home environment: can it improve the performance of activities of daily living? Journal of visual impairment & blindness 103 (5): 277-289. 2009.
Country/ies where the study was carried out	Australia
Study type	RCT
Aim of the study	To investigate the impact of eccentric viewing on near acuity and self-care activities of daily living from the point of view of a clinician working in the field of low vision.
Study dates	Published in 2009
Source of funding	Not reported
Sample size	48
Length follow-up	8 weeks
Inclusion criteria	People in good general health, aged 60 years and older People with a visual acuity of 20/200 (1.0 logMAR unit) (equivalent to 6/60) People with a diagnosis of AMD
Exclusion criteria	People were excluded if they had secondary ocular pathologies that affected their vision. People with a diagnosis of dementia People had received previous training in eccentric viewing
Patient characteristics	Age, mean (SD) years: Treatment group: 82.4 (4.9); Control group: 81.4 (7.9) Gender, M, %: Treatment group: 16.7%; Control group: 41.7%) Distance visual acuity (logMAR): Treatment group: 1.15 (0.17); Control group: 1.17 (0.22) Mean schooling completed (in years) Treatment group: 9.92 (2.02); Control group: 9.38 (1.2)

Bibliographic reference	Vukicevic Meri and Fitzmaurice Kerry. Eccentric viewing training in the home environment: can it improve the performance of activities of daily living? <i>Journal of visual impairment & blindness</i> 103 (5): 277-289. 2009.			
Details	All the data collection, assessment and rehabilitation training were conducted in the participants' homes. Training in eccentric viewing is commonly conducted as part of a home visit by clinicians of low vision agencies in Australia, and an additional purpose of providing in-home training was to decrease the amount of traveling required by the participants. Training in eccentric viewing was conducted using the EccVue computer programme presented on a laptop personal computer.			
Intervention	Participants were sequentially allocated to either an eccentric viewing group or a non-intervention group. The participants were told that they would be allocated to a study group but were not told to which group they were assigned. The eccentric viewing group received 8 training sessions in eccentric viewing. The number of training sessions was chosen based on the basis of data from a pilot study. The non-intervention group was a control group that received a weekly telephone call of 15 or fewer minutes for the duration of study in which they received support but no rehabilitation advice.			
Results		Eccentric viewing group (n=24)	Control group (n=24)	Effect (95%CI)
	Mean near visual acuity logMAR (SD)	1.0 (0.18)	1.40 (0.17)	-0.38 (-0.47, -0.29)
	Activities of daily living (MLVAI)	31.58 (3.88)	25.33 (4.98)	6.25 (3.72, 8.78)
Missing data handling/loss to follow up	All completed study			
Was allocation adequately concealed?	Unclear			
Was knowledge of the allocated intervention adequately prevented during the study?	Unclear			
Was the allocation sequence adequately generated?	Unclear			

Bibliographic reference	Vukicevic Meri and Fitzmaurice Kerry. Eccentric viewing training in the home environment: can it improve the performance of activities of daily living? Journal of visual impairment & blindness 103 (5): 277-289. 2009.
Was the study apparently free of other problems that could put it at a high risk of bias?	Unclear
Were incomplete outcome data adequately addressed?	N/A
Are reports of the study free of suggestion of selective outcome reporting?	Unclear

Bibliographic reference	Vukicevic Meri and Fitzmaurice Kerry. Rehabilitation strategies used to ameliorate the impact of centre field loss. Visual impairment research 7: 79-84. 2005.
Country/ies where the study was carried out	Australia
Study type	RCT
Aim of the study	To compare the impact of 3 interventions (eccentric viewing, magnification, and combined intervention) upon near print size and the performance of daily living task.
Study dates	Published in 2005
Source of funding	Not reported
Sample size	58
Length follow-up	8 weeks
Inclusion criteria	People aged 50 years or older People were legally blind according to Australian Social Security classifications, which equates to a level of visual acuity of 6/60 (20/200) or worse due to AMD.
Exclusion criteria	People were secondary ocular pathology or diagnosed with dementia.
Patient characteristics	Age, mean (SD) years: 82 years

Bibliographic reference	Vukicevic Meri and Fitzmaurice Kerry. Rehabilitation strategies used to ameliorate the impact of centre field loss. Visual impairment research 7: 79-84. 2005.				
	Gender, M, %: 33.7% (n=19)				
Details	N/A				
Intervention	<p>Participants were randomly allocated into one of 4 age-matched groups:</p> <p>Group 1: eccentric viewing received 8 training session in eccentric viewing using the “EccVue” computer programme;</p> <p>Group 2: combination group received 8 training sessions in eccentric viewing using “EccVue” and assessment and instruction in the use of magnification;</p> <p>Group 3: Magnification group received assessment and up to 3 instruction sessions in the use of magnification which telephone contact from the researcher to the equivalent to the 8 eccentric viewing session;</p> <p>Group 4: a non-intervention group that received a weekly phone call for the 8 weeks of the study, each lasting no more than 15 minutes.</p>				
Results		Eccentric viewing	Magnification	Combination (eccentric viewing + magnification)	Non-intervention
	Number of participants	22	12	12	12
	Near visual acuity				
	ADL score, part A	35.2	45.3	45.1	30
	ADL score, part A change from baseline	5.2	12.8	16.6	0
	ADL score, part B	30	24	31	26
	ADL score, part B change from baseline	6	1	5	-1
		Percentage of people had their goals achieved.			

Bibliographic reference		Vukicevic Meri and Fitzmaurice Kerry. Rehabilitation strategies used to ameliorate the impact of centre field loss. Visual impairment research 7: 79-84. 2005.			
		Eccentric viewing	Magnification	Combination (eccentric viewing + magnification)	Non-intervention
	Number of participants	22	12	12	12
	% of people reported goals achieved	74%	55%	71%	0
Missing data handling/loss to follow up	N/A				
Was allocation adequately concealed?	Unclear				
Was knowledge of the allocated intervention adequately prevented during the study?	Unclear				
Was the allocation sequence adequately generated?	Unclear				
Was the study apparently free of other problems that could put it at a high risk of bias?	Unclear				
Were incomplete outcome data adequately addressed?	Unclear				
Are reports of the study free of suggestion of selective outcome reporting?	Unclear				