
Self-management education programs for age-related macular degeneration: a systematic review

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CRD summary

This review concluded that self-management programmes appear effective for older adults with age-related macular degeneration. This was generally a well conducted review and the authors' conclusions are likely to be reliable.

Authors' objectives

To evaluate the effectiveness of health education programmes in older adults with age-related macular degeneration.

Searching

MEDLINE (from 1966), EMBASE (from 1980) and CINAHL (from 1982) were searched to March 2006, with no language restrictions. Search terms were reported. Reference lists of relevant articles were also searched. The search was limited to published articles

Study selection

Randomised controlled trials (RCTs) and quasi-experimental studies that evaluated health education programmes in adults older than 60 years with age-related macular degeneration were eligible for inclusion. Outcomes of interest were emotional status, functional ability and self-efficacy.

The included studies were conducted in the USA, Germany and Sweden. The interventions were described as psychosocial, self-management and health education programmes. The programmes included a number of interventions such as presentations, relaxation, problem solving, cognitive and behavioural training, and group work. The duration of the programmes was not reported. The programmes were compared with no treatment, waiting list, tape recorded lectures or individual intervention programme. The included participants had age-related macular degeneration which varied in severity; details of gender and age were not provided. A range of questionnaires were used to assess the outcomes of interest.

The authors did not state how the studies were selected for the review, or how many reviewers performed the selection.

Assessment of study quality

The quality of the studies was assessed using a 14 item assessment tool by Kmet. A summary score out of 28 and a grading (limited, adequate, good, strong or very strong) was provided for each study. Details of the actual criteria used were not provided in the review.

Two independent reviewers assessed validity, with disagreements being resolved by discussion.

Data extraction

Data were extracted on whether differences in emotional status, functional status and self-efficacy were significantly positive or negative. Effect sizes were extracted as reported in the papers. Cohen's *d* was calculated for each study from the mean difference and standard deviation, using the Thalheimer and Cook method or RevMan. Where standard deviations were not available, the *t*-value only was used. Confidence intervals (CIs) were only calculated for effect sizes calculated in RevMan. The effect sizes calculated using these difference methods were considered comparable. For dichotomous data, relative risk (RR) and 95% CIs were calculated.

Data were extracted by two independent reviewers.

Methods of synthesis

The results were combined in a narrative synthesis. Differences between studies were discussed in the text. Study details and results were tabulated.

Results of the review

Four studies (n=532), three RCTs and one quasi-experimental study, were included in the review. Two studies were rated as adequate (15/28 and 18/28), one as strong (25/28) and one as very strong (26/28).

Emotional status: using the Profile of Mood States, there was found to be significant improvements in emotional status in the self-management group compared with the comparison groups in both the short-term (effect size: -0.15 and -0.36, two studies) and longer-term (effect size: -0.22, one study). These effect sizes were considered small. One study evaluating a psychosocial programme reported a small effect size for the Positive Affect Scale (0.24), a very large effect size for the Negative Affect Scale (1.21) and a large effect size for the Geriatric Depression Scale (0.92).

Functional status: functional status was found to be significantly better in the intervention groups compared to the control groups regardless of the outcome tool used (effect size: 0.14 and 1.16, two studies). These effect sizes were considered small and very large. One study evaluating a health education programme reported improved level of security in the intervention group compared with the control group (RR: 4.5).

Self-efficacy: using the age-related macular degeneration Self-Efficacy Questionnaire there was found to be significant improvement in the intervention groups compared to the control groups (effect size: 0.23 and 0.59, two studies). These effect sizes were considered small and medium. One study evaluating a psychosocial programme reported large effect sizes for the Perceived Autonomy Scale (0.90) and for Active Problem Orientation (0.84).

Authors' conclusions

Self-management programmes appear effective for older adults with age-related macular degeneration.

CRD commentary

The review question and inclusion criteria were clear. The authors searched a number of relevant databases, with no language restrictions. Only published articles were included, so the possibility of publication bias cannot be ruled out. Study quality was assessed and results reported. Steps were taken to minimise error and bias during the review process by having more than one reviewer independently undertake the validity assessment and data extraction, but it was unclear whether this also applied to the study selection stage. A narrative synthesis was appropriate given the heterogeneity between studies. This was generally a well conducted review and the authors' conclusions are likely to be reliable.

Implications of the review for practice and research

Practice: The authors did not state any implications for practice.

Research: The authors stated that additional studies (particularly RCTs and with intention-to-treat analysis) are required to further substantiate these findings.

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This is a critical abstract of a systematic review that meets the criteria for inclusion on DARE. Each critical abstract contains a brief summary of the review methods, results and conclusions followed by a detailed critical assessment on the reliability of the review and the conclusions drawn.