The effects of reminiscence on psychological well-being in older adults: a meta-analysis

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CRD summary
This review concluded that reminiscence in general and life review in particular were potentially effective interventions for the enhancement of psychological well-being in older adults, but further research was needed. However, given concerns about some aspects of the review methodology and the inclusion of variable quality studies with small sample sizes, the authors’ conclusions should be viewed with caution.

Authors’ objectives
To evaluate the effectiveness of reminiscence on psychological wellbeing in older adults.

Searching
MEDLINE and PsycINFO were searched from inception to June 2005. Search terms were reported. Reference lists of retrieved articles and meta-analyses were scanned.

Study selection
Controlled studies that evaluated the effects of reminiscence or life review on wellbeing or life satisfaction were eligible for inclusion. Included studies had to report pre- and post-intervention data.

The intervention in the included studies was reminiscence, which included structured life review in some studies. Interventions were delivered by group and individual format. Control groups included no treatment, care as usual and placebo groups. The mean age of participants ranged from 68 to 85 years. Most participants were women. Participants were living in nursing homes, residential care homes or living in the community. Outcomes of life satisfaction and wellbeing in the included studies were assessed using a variety of instruments including the Life Satisfaction Index A (LSIA).

The authors stated neither how papers were selected for the review nor how may reviewers performed the selection.

Assessment of study quality
Studies were assessed for random assignment, number of drop outs, length of follow up, reliability and validity of outcome measures and intervention type. Two reviewers assessed validity. The authors do not report how the validity assessment was performed.

Data extraction
Data on each outcome were extracted from individual studies and used to calculate standardised effect sizes (d). These were calculated as the difference in means between post- and pre-test divided by the pre-test standard deviation for both the intervention and control groups. The overall effect size was then the difference between the intervention and control groups. The authors stated neither how data were extracted for the review nor how may reviewers performed the data extraction.

Methods of synthesis
Pooled effect sizes (d) and 95% confidence intervals (CI) were calculated using a random-effects model. Effect sizes from 0.56 to 1.2 were considered large, from 0.33 to 0.55 considered moderate and from 0 to 0.32 small. Separate meta-analyses were conducted for reminiscence compared to care as usual and for reminiscence compared to placebo control.

Heterogeneity was assessed using the I² statistic and the Q statistic. Sensitivity analysis was conducted omitting one study each time to identify outliers. Subgroup analyses were also conducted on characteristics of interventions (type of intervention and less or more than nine sessions) and participants (nursing or residential care and age above or below 80 years). Publication bias was assessed using the fail safe N.
Results of the review

Fifteen studies (approximately 863 participants) were included in the review. Seven studies evaluated life review. Nine studies evaluated reminiscence. Thirteen studies reported using random assignment. The percentage of dropouts ranged from 5% to 38%.

There was a moderate effect in favour of reminiscence in comparison with control groups for life satisfaction and emotional well being in older adults (d 0.54, 95% CI: 0.33 to 0.75, p<0.001; 17 studies, n=775). There was evidence of statistical heterogeneity (I²=50%).

There was a large overall mean effect size favouring reminiscence compared to no treatment control groups (d 0.57, 95% CI: 0.35 to 0.78) and for reminiscence compared to placebo control groups (d 0.60, 95% CI: 0.24 to 0.97) for life satisfaction and wellbeing. There was evidence of statistical heterogeneity for these analyses (I²=14% for reminiscence compared to no treatment control groups and 63% for reminiscence compared to placebo control groups).

Sensitivity analysis to investigate heterogeneity reported a large overall effect size for reminiscence compared to control groups (d 0.68, 95% CI: 0.46 to 0.87, p<0.001; 13 studies, n=487). There was still evidence of statistical heterogeneity (I²=32%). Subgroup analyses found that life review had a significantly larger effect on psychological wellbeing (d 1.04, 95% CI: 0.74 to 1.34) than reminiscence (d 0.40, 95% CI: 0.17 to 0.64).

Reminiscence had a significantly greater effect on adults living in the community (d 1.04, 95% CI: 0.72 to 1.37) compared to adults living in nursing homes or residential care institutes (d 0.44, 95% CI: 0.22 to 0.67). There was no evidence of statistical heterogeneity. There was no statistically significant differences reported for any other subgroup analyses. Assessment of publication bias found that 29 studies showing no effect would be needed to be added to the main analysis to reduce the effect size to 0.20.

Authors' conclusions

Reminiscence in general and life review in particular were potentially effective for the enhancement of psychological wellbeing in older adults, but further research was needed.

CRD commentary

The review question and inclusion criteria were broadly defined in terms of intervention, participants, outcomes and study design. Only two databases were searched, which may have resulted in the omission of other relevant studies. No attempts to minimise publication and language biases were reported. Methods used to assess validity were only partially reported and methods used to select studies and extract data were not described, so it was unknown whether efforts were made to reduce reviewer errors and bias. Validity was assessed using specified criteria, but only some results of the assessment were reported. A meta-analysis may not have been appropriate given the presence of heterogeneity and the apparent differences between studies in terms of setting, participants and interventions. There was no presentation of the results of the individual studies, either in tables or forest plots. The authors appropriately reported limitations of the low quality of evidence, high drop-out rates, no evaluation of long-term effects and differences in intervention. Given the concerns about some aspects of the review methodology and the inclusion of variable studies with small sample sizes, the authors’ conclusions should be viewed with caution.

Implications of the review for practice and research

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

Research: The authors stated that methodologically robust research was needed to evaluate the effectiveness of reminiscence on psychological wellbeing in older people investigating mediating process influences and the skills needed by professionals.

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