

The Effectiveness of Reminiscence Therapy in Reducing Levels of Depression in Older Adults

Prepared By: Karen Cruikshank

Date: 4th June 2010

CLINICAL SCENARIO

Depression is a condition that is common and disabling amongst the ever increasing population of older adults (Bohlmeijer, Smit & Cuijpers, 2003). Reminiscence therapy is an alternative treatment to medication in reducing depression levels amongst older adults (Stinson, 2009; Stinson & Kirk, 2006). Reminiscence therapy is becoming increasingly popular in the treatment of older adults and is a technique used to assist people in thinking, recalling and talking about their life, within an institution or in the community, in a structured or unstructured group or with individuals (Bornat, 1997; Stinson, 2009; Stinson & Kirk, 2006).

FOCUSSED CLINICAL QUESTION

In older adults aged ≥ 50 years, is the use of reminiscence therapy effective in reducing levels of depression.

SUMMARY OF SEARCH, 'BEST EVIDENCE' APPRAISED, AND KEY FINDINGS

Reminiscence therapy proved to be a popular research topic given that the search yielded a number of articles. There was however, a severe lack of qualitative studies available. Only one study (Lin, Dai & Hwang, 2003) mentioned a qualitative study as a part of a systematic review. Despite this, the search accumulated a number of articles of very high quality levels, including 1 meta-analysis, 1 systematic review and 4 Randomised Control Studies (RCTs). All studies contained quantitative research and most were of a pre-post test design. These studies were considered best evidence because of their ability to identify the effectiveness of interventions (Taylor, 2007); because they met all inclusion/exclusion criteria; and because they best matched the focussed clinical question.

CLINICAL BOTTOM LINE

Based on research conducted for this critical appraisal, there is strong evidence that reminiscence therapy is effective in reducing levels of depression in older adults.

RCT – Quasi-experimental Study	2	Chao, Liu, Wu, Jun, Chu, Huang & Clark (2006)
RCT – Pre-post-test design	2	Chiang, Chu, Chang, Chung, Chen, Chiou & Chou (2010)
RCT – Pre-post-treatment design	2	Stinson & Kirk (2006)

BEST EVIDENCE

Two studies were chosen for this critical appraisal: a meta-analysis (Chin, 2007) and an RCT (Watt & Cappeliez, 2000). These articles were chosen because they have a high level of “value and weighting of evidence for the effectiveness of interventions” (Taylor, 2007, p. 16) and are the most rigorous and reliable forms of evidence (Taylor, 2007). They were also most appropriate for investigating the focussed clinical question.

SUMMARY OF BEST EVIDENCE

Article 1: Chin (2007)

Aim: “to examine the clinical effects of reminiscence therapy on the life satisfaction, happiness, depression and self-esteem of older adults aged 50 or above” (p. 10).

Study Design: Meta-Analysis of RCTs

Search Strategy: Twelve electronic databases were searched with date limits ranging from 1887 to ‘current’. Search terms included: “reminiscence”, “life review”, “reminiscing” and “milestoning”. Manual searches were conducted from references and bibliographies of papers and journals that related to the topic. Eleven websites relating to mental health, ageing or geriatrics were also searched.

Setting: The setting is not stated in the analysis, however correspondence links to the Occupational Therapy Department at Kowloon Hospital, Hong Kong.

Criteria for Considering Studies: Inclusion criteria: 1) pre-post-test design; 2) at least one reminiscence group and one control group; 3) each group with at least 5 participants in post-test; 4) participants were older adults ≥ 50 years; 5) reminiscence therapy that aligned with the Haight & Burnside (1993) definition; and 6) outcome measures conducted with validated assessment tools.

Articles Reviewed: Ninety six papers were identified by title and abstract screening. Eighty six studies underwent an eligibility assessment and of these, 15 studies remained in the final analysis (see Appendix 1 for a detailed flow chart of this process). There were a total of 424 subjects, 220 received reminiscence therapy and 204 received no treatment. Eleven studies were dissertations/theses and were published in the 1980's. Twelve studies consisted of >60% females, 9 studies included institutionalised subjects and 6 studies included community based subjects.

Method:

Selection of Trials: The researcher scanned study titles and abstracts for topic relevance. Two assessors considered the eligibility of the remaining studies independently, using an eligibility assessment form.

Data Extraction: Data was extracted by two extractors independently, using a data extraction form. Three aspects of reminiscence therapy were used to identify the intensity of the intervention, which included: 1) number of treatment sessions; 2) frequency of treatment; and 3) duration of each treatment session. This data was then scored: low intensity (total score, ≤ 3); medium intensity (total score, 4-6); and high intensity (total score, 7-9).

Quality Assessment: The quality of the included trials was shown by extracting data related to: 1) method of treatment; 2) blinding of outcome assessors; and 3) attrition rate after treatment. A generic scale of Chalmers et al. (1990, as cited in Chin, 2007) was used by the data extractors to assess the quality of the methodology and reporting of included studies.

Data Analysis: The RevMan 4.2 was used to statistically analyse the data. Hedges's adjusted g was used to calculate the standardised mean difference (SMD) because often more than one scale was used to assess an outcome. To assess the significance of outcome heterogeneity, χ^2 test with $p \leq 0.01$ was used. Rosenthal's file-drawer method (1979, as cited in Chin, 2007) was used to detect whether the significant results were present due to publication bias (tolerance level for bias is $N_{FS} = 40$).

Discussion between the assessors occurred if uncertainty or disagreement arose during the selection/extraction/analysis process.

Results: The results were separated into 4 topics, life satisfaction, happiness, depression and self-esteem. This separation was due to heterogeneity.

Reminiscence therapy resulted in no significant effect on older adult's life satisfaction (fixed SMD: 0.22; 95% Confidence Interval (CI): -0.08 to 0.53), or self esteem (fixed SMD: 0.63;

95% CI: -0.20 to 1.45). It did however have a positive effect on happiness (random SMD: 1.28; 95% CI: 0.34 to 2.21) and resulted in significantly lower depression levels (random SMD: -1.39; 95% CI: -2.26 to -0.52). Publication bias was indicated in happiness ($N_{FS} = 5$) and in depression levels ($N_{FS} = 9$).

Original Authors' Conclusions: The author concluded that "reminiscence therapy has beneficial effects on the happiness and depression of older adults, but its effects on life-satisfaction and self-esteem are not significant" (p. 21). Although, due to factors regarding sample size and bias, clinical effects on older people can not be established at this stage and a more comprehensive search of relevant studies would contribute to future research.

Critical Appraisal

Taylor (2007) suggests an appraisal of a systematic review/meta analysis addresses three questions:

- 1) Are the results valid
- 2) What are the results
- 3) How will these results help me work with my clients

There are a number of criteria to meet to answer these questions, thus making the article a valid and quality source of research (Taylor, 2007).

Are the results valid:

The analysis had a clear aim that established parameters regarding the intervention used, the aspects of well being that were focused on, and the target population. Full details of the search strategy were provided. An extensive range of sources were searched, including electronic databases, manual searches and website searches, birthing an extensive range of potential papers. Key words used were adequate and appropriate to the topic and clear, concise inclusion criteria were established. A generic scale of Chalmers et al. (1990, as cited in Chin, 2007) was used to assess the quality of the methodology and reporting of included studies. The results of the analysis have not been combined, which was reasonable due to the differences in the various studies (heterogeneity).

What are the results:

The method of the meta-analysis was appropriate, including sections outlining the selection of trials, data extraction, data analysis and quality assessment which were detailed and clearly justified. The overall results addressed the aim of examining the clinical effects of reminiscence therapy. Results for each area of wellbeing were presented using a

“blobbogram” (Taylor, 2007, p. 75) which displayed the SMD and a 95% CI. The χ^2 test with $p \leq 0.01$ was used to determine the significance of heterogeneity. Conclusions have been based on the review findings.

How will these results help me work with my clients:

This analysis considers a large population of older adults (≥ 50 years), with male and female participants, living in institutions or in the community, which suggests that these findings could be considered within any practice concerning older adults. Important outcomes were considered and covered in the review. The costs/benefits have not been discussed however, the results suggest that because of the positive effects reminiscence therapy had on some aspects of wellbeing, it is beneficial to apply it in practice.

Summary:

It can be deduced from this appraisal that the meta-analysis is a valid review and provides a quality piece of research. It will satisfy any practice requiring information about the effect of reminiscence therapy on the life satisfaction, happiness, depression and self-esteem of older adults.

Article 2: Watt & Cappeliez (2000)

Aim: “The purpose of this research was to determine the impact of integrative and instrumental reminiscence interventions on depressive symptomatology and adaptive functioning in older adults, in comparison to an active socialization control group” (p. 169).

Study Design: Quantitative: RCT.

Setting: Reminiscence therapy was conducted in a group environment however the location is not mentioned in this article.

Participants: Of the 81 people contacted for the study, 52 passed the telephone screening and went on to be assessed for eligibility. Forty clients met the inclusion/exclusion criteria but due to attrition, only 26 clients completed the study. Clients were recruited through mental health agencies and community advertising.

Eligibility criteria: 1) 60 years or older; 2) significant level of depressive symptoms indicated by a score of at least 14 on the Geriatric Depression Scale (GDS); and 3) not currently receiving anti-depressant medication, or if so, must have been on the medication for at least 3 months.

Exclusion criteria: 1) high risk of suicide; 2) alcohol/drug abuse; 3) a psychiatric disorder other than primary depression; 4) score below 14 on the Mini-Mental State Examination (MMSE); 5) physical condition that may inhibit participation in group therapy; and 6) current participation in psychotherapeutic intervention.

Demographics: The mean age of the subjects was 66.8 years, 54% of subjects were female, indicating an equal gender distribution. Seventy three percent had a high level of education, 35% of participants were married, 38% divorced or separated, 15% widowed and 12% single. Sixty five percent rated their health highly and pre-treatment scores indicated that all participants had moderate to severe depression prior to their engagement in the research.

Method:

Procedure: The MMSE, the Hamilton Interview for Depression, GDS and a demographic questionnaire were conducted by a Master's level psychologist who was blinded to participant's treatment group and not involved in the treatment. Participants were randomly assigned into integrative reminiscence therapy (therapy that "aims at a constructive re-appraisal of interpretations and emotions to past self-defining events" p. 166), instrumental reminiscence therapy (therapy that "uses memories for providing evidence of past successful coping and for identifying appropriate coping strategies" p. 166), or the active socialisation control group. Nine different measures assessed participants preceding the first session, at midpoint and at the conclusion of the intervention. The Hamilton Rating Scale for Depression (HRSD) was conducted following a 3 month follow up session.

Intervention Format: The sessions were facilitated by one Master's level therapist who conducted treatment in all three groups. The two reminiscence groups consisted of 2-4 participants and ran for 6 weekly sessions of 90 minutes. The control group consisted of 2-4 participants and ran for 6 weekly sessions.

Measures Used: MMSE, HRSD, GDS and Social Adjustment Scale (SAS).

Data Analysis: The clinical significance of the two reminiscence groups was evaluated by a strategy developed by Jacobson et al. (1984, as cited in Chin, 2007). A Mann-Whitney U test analysed the effectiveness of the reminiscence groups against the control group according to significant change.

Results: Both the integrative and instrumental reminiscence groups resulted in significant improvements in depression levels at the conclusion of the intervention.

The integrative intervention achieved a clinically significant improvement in the post treatment: GDS ($p < 0.01$) and at the 3 month follow up: HRSD ($p < 0.01$). There were no

significant differences between the integrative and control groups regarding improvement of the SAS at the cessation of the 6 week treatment ($p>0.05$).

The instrumental intervention achieved a clinically significant improvement in the post treatment: GDS ($p<0.05$) and at the 3 month follow up: HRSD ($p<0.01$). There were no significant differences between the instrumental and the control group on the SAS ($p>0.05$).

Original Authors' Conclusions: The author concluded that integrative and instrumental reminiscence can be therapeutic in reducing depressive symptomatology compared to unstructured reminiscence. Recommendations for future investigations included: 1) the sample size should be increased and the sample subjects should be more diverse; and 2) integrative and instrumental reminiscence approaches should be incorporated into a single intervention.

Critical Appraisal

Taylor (2007) suggests an appraisal of a clinical trial addresses three questions:

- 1) Are the results valid
- 2) What are the results
- 3) How will these results help me work with my clients

There are a number of criteria to meet to answer these questions, thus making the article a valid and quality source of research (Taylor, 2007).

Are the results valid:

The RCT clearly identified what the research aimed to achieve, and a hypothesis was generated and examined. A clear explanation of the population was given, including demographics and inclusion/exclusion criteria. Intervention/control groups were clearly explained, as were the outcomes, how outcomes were measured and the reason for selecting these measures. The process of random assignment to treatment was clearly explained. All participants were accounted for during the course of the intervention, thus reducing drop out bias. The literature review is appropriate, clear and comprehensive, offering a wide range of sources that present positive and negative views on reminiscence therapy. The assessor conducted all assessments and was blind to treatment groups however, due to the nature of the study, the therapist and participants were not blinded. Apart from the experimental intervention, the three groups were treated equally. There is no mention of ethics or ethical issues in this research article.

What are the results:

There was an extensive description of the data collection methods used. The measures used were valid and reliable tools for assessing depression and social adjustment in older adults. The method of data analysis was clear, well explained and appropriate in relation to the aim of the study. The results compared the groups in order to determine the impact of the two reminiscence groups on depression and adaptive functioning in older adults in comparison to an active socialisation group.

How will the results help me work with my clients:

This study focuses on older adults (>60 years) in the community (this has been assumed due to the nature of participant recruitment) with clinically significant levels of depressive symptomatology. However, these results could be transferred into an older adult inpatient environment. All of the important outcomes outlined in the overview of the study were considered and covered in the review. The costs/benefits have not been discussed in this study, however, the results would suggest that because of the positive effects reminiscence therapy had on depressive symptomatology, it would be beneficial in practice.

Summary:

It can be deduced from this appraisal that at face value the RCT is a valid review, however the reader should be cautious because not all the validity criteria has been met. Although significant results were obtained they were not of a high level of significance and this should be taken into account. No ethical issues were addressed which can affect the validity of the research results.

IMPLICATIONS FOR PRACTICE, EDUCATION AND FUTURE RESEARCH

A critical summary of the two articles reviewed would suggest that there is statistically significant evidence that receiving reminiscence therapy reduces the levels of depression amongst the older adult population. However, this critical appraisal provided a review of only 16 studies, with a total of 450 participants between the two articles, so readers should use the information cautiously and as a base to add to other research studies related to this topic.

The studies presented research that was conducted in institutions and in the community, with both male and female participants, and within a group or individual environment. This is convenient for practitioners because it provides them with an intervention that can be used in any setting that caters for older adults. However, these studies have all demonstrated

positivity towards reminiscence therapy, and occasionally reminiscence with older adults can conjure up unwanted or upsetting memories and the reminiscence facilitator must be trained and prepared to manage these situations (Bornat, 1997).

Both articles mentioned the use of small sample sizes. This may have had an effect on the final results and readers should keep this in mind if the studies are going to be implemented in practice. Recommendations for future research were to increase the sample size and include a more diverse range of subjects to increase the validity and rigour of the research.

Chin (2007) suggested that the structured nature of the integrative and instrumental reminiscence groups were more effective than an unstructured reminiscence group and recommended that in future research these structured groups should be integrated into a single intervention. Future research needs to embrace this supposition and experiment with other research options relating to reminiscence groups. This will give readers/researchers/practitioners a better understanding of the possibilities available with reminiscence interventions, ultimately benefitting the older adults receiving the treatment.

It can be concluded that because this critical appraisal has found these two articles to be valid and reliable, they can be trusted to be applied in practice, however, because they include small sample sizes, no mention of ethics and the population used is not varied, caution should be used by the practitioner, and additional research and clinical experience should be utilised in conjunction with these two articles before any changes are made in practice.

References

- Bohlmeijer, E., Smit, F., & Cuijpers, P. (2003). Effects of reminiscence and life review on late-life depression: A meta-analysis. *International Journal of Geriatric Psychiatry* 18, 1088-1094. Retrieved May 15, 2010, from CINAHL database.
- Bornat, J. (1997). Approaches to reminiscence. In I. J. Norman & S. J. Redfern (Eds.), *Mental health care for elderly people* (pp. 393-417). New York: Churchill Livingstone.
- Chao, S. Y., Liu, H. Y., Wu, C. Y., Jin, S. F., Chu, T. L., Huang, T. S., & Clark, M. J. (2006). The effects of group reminiscence therapy on depression, self esteem, and life satisfaction of elderly nursing home residents. *Journal of Nursing Research*, 14(1), 36-37. Retrieved May 15, 2010, from CINAHL database.
- Chiang, K. J., Chu, H., Chang, H. J., Chung, M. H., Chen, C. H., Chiou, H. Y., & Chou, K. R. (2010). The effects of reminiscence therapy on psychological well-being, depression, and loneliness among the institutionalized aged. *International Journal of Geriatric Psychiatry* 25, 380-388. Retrieved May 21, 2010, from ProQuest database.
- Chin, A. M. H. (2007). Clinical effects of reminiscence therapy in older adults: A meta-analysis of controlled trials. *Hong Kong Journal of Occupational Therapy*, 17(1), 10-22. Retrieved May 21, 2010, from Science Direct database.
- Lin, Y., Dai, Y., & Hwang, S. (2003). The effect of reminiscence on the elderly population: A systematic review. *Public Health Nursing*, 20, 297-306. Retrieved May 15, 2010, from CINAHL database.
- Stinson, C. K. (2009). Structured group reminiscence: An intervention for older adults. *The Journal of Continuing Education in Nursing*, 40, 521-528. Retrieved May 20, 2010, from PubMed database.
- Stinson, C. K., & Kirk, E. (2006). Structured reminiscence: An intervention to decrease depression and increase self-transcendence in older women. *Journal of Clinical Nursing*, 15, 208-218. Retrieved May 20, 2010, from OT Seeker database.
- Taylor, M. C. (2007). *Evidence-based practice for occupational therapists* (2nd ed.). Oxford: Blackwell Publishing Ltd.

Watt, L. M., & Cappeliez, P. (2000). Integrative and instrumental reminiscence therapies for depression in older adults: Intervention strategies and treatment effectiveness. *Aging & Mental Health*, 4(2), 166-177. Retrieved May 21, 2010, from CINAHL database.

Appendix One: Flow Chart of Article Identification Process (Adapted from Chin, 2007)



