

Best Evidence Summaries of Topics in Mental Healthcare

BEST *in* **MH** *clinical question-answering service*

Question

In Older Adults with moderate to severe dementia how effective is home care when compared with residential home care in terms of reducing risk, and improved patient outcomes?

Clarification of question using PICO structure

Patients: Adults with moderate to severe dementia

Intervention: home care / community treatment

Comparator: Residential home care

Outcome: improved patient outcomes / risk reduction

Clinical and research implications

There is no direct evidence on the effectiveness of home care or community treatment for patients with moderate to severe dementia. There is some evidence, from one very small poor quality study, that admission of patients to residential care to specialist dementia care homes may improve short-term (three months) psychological outcomes for carers, without adverse effects on patients.

Larger, higher quality randomised controlled trials are required to confirm these findings and to assess the effectiveness of standardised home and community care interventions.

What does the evidence say?

Number of included studies/reviews (number of participants)

We identified one randomised controlled trial which partially met the PICO criteria for this abstract, (n=26, n=22 included in the analyses).

Main Findings

The study compared a specialist residential unit for dementia sufferers with home care, in dementia patients who were in reasonable physical health at the start of the study and whose carers had decided to relinquish their care giving role.

There were apparent improvements in psychological outcomes (GHQ, Chronic GHQ, DSSI Anxiety and DSSI Depression) of carers in the intervention (specialist residential care) group, from baseline to three months post-admission. There were no clear changes in any outcome for carers in the control group (home care).

There was a general trend towards deterioration (MMSE, Adaptive Behavioural Scale and Behaviour Problems) in dementing patients in both intervention and control groups, from baseline to three months. There was an apparent deterioration in the Behavioural Problems Checklist score of patients in the intervention group one month after admission, however, this deterioration appeared to resolve after three months.

Authors Conclusions

The authors concluded that admission of patients to specialist dementia care units appears to be of great benefit to the psychological health of their care givers, without adverse effects on the dementia sufferers. They also stated that rigorous evaluations are needed to assess the effectiveness of other types of residential dementia care.

Reliability of conclusions/Strength of evidence

The included study does not directly meet the PICO criteria for this abstract as it did not aim to assess the effectiveness of homecare or community treatment (the specified intervention). Although homecare was used as the control arm, this was not standardised; patients and carers in the control arm received a variety of interventions during the study period, (e.g. respite care, day care, aid from the Australian Royal District Nursing Service, and home help) and the frequency of these interventions was not specified. In addition the study focussed on psychological outcomes for care givers, which were not specified in the PICO criteria and it did not report any risk outcomes for dementia patients.

All the carers in the study had high levels of psychological symptoms pre-study (22 had general health questionnaire (GHQ) scores ≥ 5), and all had decided to relinquish their care giving role prior to entry into the study. The results of this study may therefore not be broadly generalisable to all carers of dementia patients.

The study was small and of relatively short duration (three months) and was therefore unlikely to be adequate to detect any differences in dementia outcomes between the intervention and control groups. The exclusion from the analyses of participants who changed residential status during the study is also problematic, as changes in residential status are likely to be linked to an improvement or deterioration in symptoms. The intervention and control groups were not equivalent at baseline; carers in the control group had lower scores on all outcome measures than those in the intervention group and may therefore have had greater potential for improvement. To address this last issue, the authors report 'covariate analyses', where the dependent variable was outcome at three months, the independent variable was residential status (intervention/control) and baseline score was treated as a covariate. However, these analyses are of doubtful value, given the very small size of the study.

Overall, this study has a number of significant methodological weaknesses and the results cannot be treated as robust. Larger, higher quality randomised controlled trials would be required to confirm these findings.

What do guidelines say?

Not applicable

References

Randomised Controlled Trials

1. Wells Y, Jorm A,. Evaluation of a Special Nursing Home Unit for Dementia Sufferers: A Randomised Controlled Comparison with Community Care. *Australian and New Zealand Journal of Psychiatry* (1987) 21: 574-531.

Results

RCTs

Author (year)	Inclusion criteria	Number of participants	Summary of results	Risk of bias
Wells (1987)	Initial contact was with a social worker who looked at the family situation. Suitable cases were then assessed by a general practitioner for medical suitability. All potential residents had to be dementing, yet in reasonable physical health. The final stage was diagnosis of dementia by a psychiatrist.	N = 26 (N = 22 included in the analyses)	<p>The 22 patients who remained in their allocated groups (specialist residential care or homecare) until the end of the study were included in the analysis. Those in the home care group who were admitted to residential care during the study (n=3) and those in the residential group who improved and returned home (n=1) were excluded from the analyses.</p> <p>All care givers in the study had high levels of psychological symptoms pre-study (22 had general health questionnaire (GHQ) scores ≥ 5). All care givers had decided to relinquish their care giving role prior to entry into the study.</p> <p>All outcome measures were reported both as mean and standard deviation at baseline, one and three months, in the intervention and control groups and as effect size (Cohen's d with Hedges correction). For effect size (ES) measures 0 indicates no improvement, 1 indicates an improvement of one standard deviation and -1 indicates a deterioration of one standard deviation.</p> <p>There was a general trend towards deterioration of the dementing patients over time (baseline to three months), for all outcome measures, in both intervention and</p>	<p>The intervention (specialist residential care) and control (home care) groups were not equivalent at baseline; the care givers in the control group had lower baseline scores (on all outcome measures) than those in the intervention group. To address this issue, the authors report 'covariate analyses', where the dependent variable was outcome at three months, the independent variable was residential status (intervention/control) and baseline score was treated as a covariate. However, these analyses are of doubtful value, given the very small size of the study.</p> <p>No detail of the</p>

			<p>control groups. ES for Mini-Mental State Examination (MMSE), adaptive Behavioural Scale and Behaviour Problems were -0.74, -0.26 and -0.05 in the intervention group and -0.27, -0.65 and -0.20 in the control group. There was an apparent deterioration in the behavioural problems checklist score of patients in the intervention group one month after admission, however, this deterioration appeared to resolve after three months.</p> <p>All psychological outcome measures in care givers (GHQ, Chronic GHQ, Delusions-Symptoms-States inventory (DSSI) Anxiety, and DSSI Depression) indicated an improvement from baseline to three months; all ES values were between 1.50 and 2.00. ES for Quality of Life, Grief and Guilt outcomes were 0.96, 0.72 and 0.84, respectively. There were no clear changes in any of the outcome measures for care givers in the control group; ES ranged from -0.34 to 0.67.</p>	<p>randomisation process was reported.</p> <p>Blinding of participants and study personnel was not possible due to the nature of the intervention. Whilst blinding of outcome assessors is theoretically possible it was not used in this study (assessments were undertaken by nursing staff or care givers in the patient's home).</p> <p>Data were not analysed on an intention-to-treat basis: Four of the study participants were excluded from the analyses (3 in the home care group who were moved to residential care before the study ended, and one in the residential care group who improved and returned home). As the changes in the residential status of these patients appear to reflect deterioration/improvement</p>
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				in their dementia, their exclusion from the analyses is problematic.
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Risk of Bias

RCTs

Study	RISK OF BIAS					
	Random allocation	Allocation concealment	Blinding of participants and personnel	Blinding of outcome assessment	Incomplete outcome data	Selective Reporting
Study 1	?	?	☹️	☹️	☹️	😊

😊 Low Risk

☹️ High Risk

? Unclear Risk

Search Details

Source	Search Strategy	Number of hits	Relevant evidence identified
SRs and Guidelines			
NICE	Dementia* and resident*	196	0
DARE	(dement*) AND (home* OR resident*)	96	0
Primary studies			
CENTRAL	#1 (dementia):ti,ab,kw 3968 #2 (home) 15347 #3 residential 1373 #4 MeSH descriptor Dementia explode all trees 3088 #5 MeSH descriptor Home Care Services explode all trees 1846	194	0

	<p>#6 MeSH descriptor Residential Facilities explode all trees 1082</p> <p>#7 MeSH descriptor Residential Treatment explode all trees 106</p> <p>#8 (#6 OR #7) 1171</p> <p>#9 (#1 OR #4) 5151</p> <p>#10 (#2 OR #5) 15363</p> <p>#11 (#3 OR #8) 2249</p> <p>#12 (#9 AND #10 AND #11) 269</p> <p>#13 MeSH descriptor Frail Elderly explode all trees 421</p> <p>#14 elderly 13306</p> <p>#15 older 27693</p> <p>#16 aged 301150</p> <p>#17 (#13 OR #14 OR #15 OR #16) 309468</p> <p>#18 (#12 AND #17) 263</p> <p>#19 risk 78420</p> <p>#20 outcomes 153019</p> <p>#21 MeSH descriptor Risk Factors explode all trees 15372</p> <p>#22 MeSH descriptor Quality of Life explode all trees 11317</p> <p>#23 MeSH descriptor Outcome Assessment (Health Care) explode all trees 77266</p> <p>#24 (#19 OR 21) 133841</p> <p>#25 (#20 OR #22 OR #23) 158215</p> <p>#26 (#24 OR #25) 237390</p> <p>#27 (#18 AND #26) 194</p>		
MEDLINE	<p>1. MEDLINE; dementia.ti,ab; 53684 results.</p> <p>2. MEDLINE; exp DEMENTIA/; 100746 results.</p> <p>3. MEDLINE; home.ti,ab; 122385 results.</p>	174	1

<p>4. MEDLINE; exp HOME NURSING/; 8264 results.</p> <p>5. MEDLINE; residential.ti,ab; 15541 results.</p> <p>6. MEDLINE; RESIDENTIAL TREATMENT/; 2436 results.</p> <p>7. MEDLINE; exp RESIDENTIAL FACILITIES/; 39413 results.</p> <p>8. MEDLINE; 1 OR 2; 116260 results.</p> <p>9. MEDLINE; 3 OR 4; 126782 results.</p> <p>10. MEDLINE; 5 OR 6 OR 7; 53502 results.</p> <p>11. MEDLINE; 8 AND 9 AND 10; 1929 results.</p> <p>12. MEDLINE; "older adult*".ti,ab; 25245 results.</p> <p>13. MEDLINE; exp AGED/; 2037912 results.</p> <p>14. MEDLINE; elderly.ti,ab; 146274 results.</p> <p>15. MEDLINE; aged.ti,ab; 297607 results.</p> <p>16. MEDLINE; 12 OR 13 OR 14 OR 15; 2256313 results.</p> <p>17. MEDLINE; 11 AND 16; 1764 results.</p> <p>18. MEDLINE; exp RISK/; 686874 results.</p> <p>19. MEDLINE; risk.ti,ab; 970989 results.</p> <p>20. MEDLINE; "patient outcome*".ti,ab; 17915 results.</p> <p>21. MEDLINE; "OUTCOME ASSESSMENT (HEALTH CARE)"/; 40253 results.</p> <p>22. MEDLINE; QUALITY OF LIFE/; 94592 results.</p> <p>23. MEDLINE; 18 OR 19; 1275812 results.</p> <p>24. MEDLINE; 20 OR 21 OR 22; 146681 results.</p> <p>25. MEDLINE; 23 OR 24; 1397874 results.</p> <p>26. MEDLINE; 17 AND 25; 505 results.</p> <p>27. MEDLINE; "randomized controlled trial".pt; 317017 results.</p> <p>28. MEDLINE; "controlled clinical trial".pt; 83282 results.</p> <p>29. MEDLINE; randomized.ab; 232836 results.</p>		
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	<p>30. MEDLINE; placebo.ab; 131726 results.</p> <p>31. MEDLINE; "drug therapy".fs; 1488787 results.</p> <p>32. MEDLINE; randomly.ab; 171477 results.</p> <p>33. MEDLINE; trial.ab; 240361 results.</p> <p>34. MEDLINE; groups.ab; 1125944 results.</p> <p>35. MEDLINE; 27 OR 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34; 2843210 results.</p> <p>36. MEDLINE; 26 AND 35; 174 results.</p>		
EMBASE	<p>27. EMBASE; dementia.ti,ab; 68769 results.</p> <p>28. EMBASE; exp DEMENTIA/; 179596 results.</p> <p>29. EMBASE; home.ti,ab; 143033 results.</p> <p>30. EMBASE; exp HOME NURSING/; 46766 results.</p> <p>31. EMBASE; residential.ti,ab; 18555 results.</p> <p>32. EMBASE; RESIDENTIAL TREATMENT/; 8530 results.</p> <p>33. EMBASE; exp RESIDENTIAL FACILITIES/; 4929 results.</p> <p>34. EMBASE; 27 OR 28; 189096 results.</p> <p>35. EMBASE; 29 OR 30; 159716 results.</p> <p>36. EMBASE; 31 OR 32 OR 33; 27665 results.</p> <p>37. EMBASE; 34 AND 35 AND 36; 439 results.</p> <p>38. EMBASE; "older adult*".ti,ab; 29252 results.</p> <p>39. EMBASE; exp AGED/; 1906742 results.</p> <p>40. EMBASE; elderly.ti,ab; 181273 results.</p> <p>41. EMBASE; aged.ti,ab; 345759 results.</p> <p>42. EMBASE; 38 OR 39 OR 40 OR 41; 2180292 results.</p> <p>43. EMBASE; 37 AND 42; 333 results.</p> <p>44. EMBASE; exp RISK/; 1086057 results.</p> <p>45. EMBASE; risk.ti,ab; 1199861 results.</p> <p>46. EMBASE; "patient outcome*".ti,ab; 22257 results.</p> <p>47. EMBASE; "OUTCOME ASSESSMENT (HEALTH</p>	18	0

	<p>CARE)"/; 147393 results.</p> <p>48. EMBASE; QUALITY OF LIFE/; 181304 results.</p> <p>49. EMBASE; 44 OR 45; 1617033 results.</p> <p>50. EMBASE; 46 OR 47 OR 48; 336607 results.</p> <p>51. EMBASE; 49 OR 50; 1882683 results.</p> <p>52. EMBASE; 43 AND 51; 86 results.</p> <p>53. EMBASE; random*.ti,ab; 675251 results.</p> <p>54. EMBASE; factorial*.ti,ab; 17661 results.</p> <p>55. EMBASE; (crossover* OR cross-over*).ti,ab; 57674 results.</p> <p>56. EMBASE; placebo*.ti,ab; 163622 results.</p> <p>57. EMBASE; (doubl* ADJ blind*).ti,ab; 120484 results.</p> <p>58. EMBASE; (singl* ADJ blind*).ti,ab; 11395 results.</p> <p>59. EMBASE; assign*.ti,ab; 189022 results.</p> <p>60. EMBASE; allocat*.ti,ab; 63598 results.</p> <p>61. EMBASE; volunteer*.ti,ab; 147730 results.</p> <p>62. EMBASE; CROSSOVER PROCEDURE/; 31558 results.</p> <p>63. EMBASE; DOUBLE BLIND PROCEDURE/; 102446 results.</p> <p>64. EMBASE; RANDOMIZED CONTROLLED TRIAL/; 295130 results.</p> <p>65. EMBASE; SINGLE BLIND PROCEDURE/; 14625 results.</p> <p>66. EMBASE; 53 OR 54 OR 55 OR 56 OR 57 OR 58 OR 59 OR 60 OR 61 OR 62 OR 63 OR 64 OR 65; 1120559 results.</p> <p>67. EMBASE; 52 AND 66; 18 results.</p>		
PsycINFO	<p>1. PsycINFO; dementia.ti,ab; 35486 results.</p> <p>2. PsycINFO; exp DEMENTIA/; 42932 results.</p>	52	0

<p>3. PsycINFO; 1 OR 2; 51701 results.</p> <p>4. PsycINFO; "home care".ti,ab; 3104 results.</p> <p>5. PsycINFO; home.ti,ab; 66340 results.</p> <p>6. PsycINFO; HOME CARE/; 3762 results.</p> <p>7. PsycINFO; 4 OR 5 OR 6; 67030 results.</p> <p>8. PsycINFO; "residential care".ti,ab; 1889 results.</p> <p>9. PsycINFO; exp RESIDENTIAL CARE INSTITUTIONS/; 27096 results.</p> <p>10. PsycINFO; 8 OR 9; 27742 results.</p> <p>11. PsycINFO; 7 OR 10; 88547 results.</p> <p>12. PsycINFO; 3 AND 11; 4028 results.</p> <p>13. PsycINFO; "older adult*".ti,ab; 20931 results.</p> <p>14. PsycINFO; AGING/; 25541 results.</p> <p>15. PsycINFO; elderly.ti,ab; 39988 results.</p> <p>16. PsycINFO; exp ELDER CARE/; 2739 results.</p> <p>17. PsycINFO; 13 OR 14 OR 15 OR 16; 72800 results.</p> <p>18. PsycINFO; 12 AND 17; 1225 results.</p> <p>19. PsycINFO; RISK MANAGEMENT/ OR HARM REDUCTION [+NT]/; 3913 results.</p> <p>20. PsycINFO; risk.ti,ab; 165891 results.</p> <p>21. PsycINFO; 19 OR 20; 167043 results.</p> <p>22. PsycINFO; "patient outcome*".ti,ab; 1988 results.</p> <p>23. PsycINFO; TREATMENT OUTCOMES/ OR CLIENT SATISFACTION/; 23542 results.</p> <p>24. PsycINFO; QUALITY OF LIFE/; 20669 results.</p> <p>25. PsycINFO; 22 OR 23 OR 24; 44831 results.</p> <p>26. PsycINFO; 21 OR 25; 208490 results.</p> <p>27. PsycINFO; 18 AND 26; 221 results.</p> <p>28. PsycINFO; CLINICAL TRIALS/; 5673 results.</p> <p>29. PsycINFO; random*.ti,ab; 104801 results.</p>		
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	30. PsycINFO; groups.ti,ab; 315768 results. 31. PsycINFO; (double adj3 blind).ti,ab; 15472 results. 32. PsycINFO; (single adj3 blind).ti,ab; 1144 results. 33. PsycINFO; EXPERIMENTAL DESIGN/; 8106 results. 34. PsycINFO; controlled.ti,ab; 65589 results. 35. PsycINFO; (clinical adj3 study).ti,ab; 6554 results. 36. PsycINFO; trial.ti,ab; 55151 results. 37. PsycINFO; "treatment outcome clinical trial".md; 20758 results. 38. PsycINFO; 28 OR 29 OR 30 OR 31 OR 32 OR 33 OR 34 OR 35 OR 36 OR 37; 483505 results. 39. PsycINFO; 27 AND 38; 52 results.		
Summary	NA	NA	

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