

TABLE DS1 The studies accessed in the systematic review

Author, Year, Country of Origin (Brodaty score)	Predisposing	Reinforcing and enabling	Reported positive effects of training
Banazac, 2000, USA (1) – some primary data presented, paper was mainly opinion	One 30 minute session with video examples teaching about managing difficult behaviours during bath time		Evaluation of teaching completed but no results provided
Burgio, 2002, USA (7)	5 hours of training over 3 days on: communication skills, behaviour management skills, memory books, individually tailored management plans, video-taped depiction of good and bad care	Formal staff motivational system: 2 hours of training for supervisory staff; 4 weeks of daily workplace supervision and assessment to ensure proper use of learned techniques, combined with hands-on training of supervisory staff; 4 weeks of training for supervisors in methods of reinforcing skills	Improved communication skills, more appropriate support and reduction in residents' agitation while assisting ADLs
Burgio et al, 2001, USA (6)	2 hours on communication skills and use of memory books	4 weeks of hands-on training; 2 hours of training for supervisors; formal motivational system	Increase in time spent talking to residents, use of positive statements and specific one-step instructions
Chang, 2005 Taiwan (4)	3 hours of teaching and provision of written material about: nutrition, feeding skills, mealtime environment, and attitude and approach to individuals at mealtimes	One hour hands-on training	Questionnaire responses indicated improved knowledge and attitude towards feeding. Altered approach to residents at mealtimes, increased length of time residents had to eat their meals
Cohen-Mansfield 1997, USA (4)	40 minutes on wandering and pacing, attempting to alter attitudes to these behaviours		Knowledge of dementia improved after teaching session as measured by a quiz but returned to pre-training levels within 1 month
Marsiske, 1989, Cohn, 1990, USA (1)	Five 90 minute sessions were provided at 1 month intervals on behaviour management	Token reinforcement; workplace supervision	Improved knowledge and self-reported use of behavioural management skills
Davision, 2007 (6)	Eight sessions of 60–90 minutes using didactic teaching and experiential learning on management of difficult behaviour	Five peer-support sessions of 30–60 minutes discussing emotional reactions and work-related stress	Self-reported improved attitudes and knowledge, supervisors reported improved performance of care
Featherstone, 2004, UK (3)	Six 1 hour weekly sessions using cognitive-behavioural and experiential learning approach		Questionnaires showed change in attitude and knowledge
Feldt, 1992, USA (0)	Teaching in 8 areas relevant to dementia and aggressive behaviour	6 weeks of hands-on training by one specialist nurse	The task of care-giving viewed as more rewarding and less frustrating
Finnema, 2005, Netherlands (4)	Training in emotion-oriented care provided in nursing home	Reinforced with additional training	Anxiety and dissatisfaction reduced in people with mild to moderate dementia and reduction in stress in some nursing assistants
Fossey, 2006, UK (6)	10 months of training in person-centred care, positive care planning, environmental design, non-pharmacological behavioural management and communication skills	Reinforced through group supervision and individual case supervision	20% reduction in antipsychotic use
Hagen, 1995, Canada (1)	Dementia teaching, three 30 minute modules to reduce aggression		50% drop in reported episodes of aggression.
Hilman, 2001 (1) USA	Providing social and personal information about residents		Some improvement in attitudes towards residents who demonstrated aggressive behaviour
Kihlgren, 1990, Sweden (2)	20 hours of lectured and 18 hours of group discussions over 1 week on integrity-promoting care (a combination of person-centred care and improved communication skills)	Three months of on-the-job guidance, including watching videos of carers' interaction with individuals; opportunity to change environment	More sensitive to individuals, adapted their cues and made the environment easier to interpret for the patients
Kihlgren, 1996, Sweden (1)	One week course of integrity-promoting care – 20 hours of lectures and 18 hours of group discussions (a combination of person-centred care and improved communication skills)	Three months of supervised intervention	Increased opportunity for individual to take part in decisions about care, increased two-way verbal communication and improved cooperation of patients

Lintern, 2000, UK (1)	Two days of training for all staff	Organisational changes, observation of staff (Dementia Care Mapping) and feedback	Questionnaire and vignette responses showed greater awareness of need and stronger commitment to promoting independence. Increased engagement in activities and more positive verbal interactions were observed
Maas, 1994, USA (3)	40 hours of teaching on all aspects of dementia and ensuring safe physical environment through liaison work	40 hours of supervised clinical sessions; adjustments to physical environment and daily programme of unit; monitoring of absenteeism	No positive effects noted
Magai, 2002, USA (5)	Ten 1 hour sessions on sensitivity to emotional cues and nonverbal expression		Increase in positive facial expressions in residents and improved well-being in staff as measured by Brief Symptom Inventory.
Matteson et al 1997, USA (6) DCWs had subsidiary role in this project	Six 30 minute sessions of behavioural and environmental management training	Environmental modification and assistance writing specific care plans	Reduction in irrational, restless and inappropriate behaviour and use of anxiolytics and antipsychotics
Matthews, 1997, USA (1)	21 hours of lecture/discussion on dementia, promoting independence, improving communication and creating individualized care plans with one 45–90 minute session on least prompt approach to care	Supervised hands-on observation of personal care with feedback till required tasks were completed at 'mastery'	Four-fold increase in desired care behaviours observed by researchers
McCallion et al 1999, USA (7)	Communication skills taught in five 45 minute small group sessions	Four 30-minute individual sessions including observation of DCW communicating with a resident.	Improved well-being among residents, greater knowledge of care giving responses and reduced staff turnover
Middleton, 1999, USA (1)	One day seminar on physical and pharmacological restraints		Questionnaire showed improved knowledge in DCWs about appropriate and humane use of physical and chemical restraint
Moniz-Cook, 1998, UK (7)	Five 3-hour sessions with additional homework aimed at understanding and managing challenging behaviour		Reduction in problem behaviour of residents
Palmer, 1996, USA (1)	Unspecified number of classes on non-abusive psychological and physical interactions		Self-reported improvement in use of behavioural management techniques and inter-staff communication
Parks, 2005, USA (3)	Five lectures on palliative issues in dementia		Improved knowledge and attitude about end-of-life care in dementia, maintained for one year post teaching
Peterson, 2002, USA (3)	6 hours of class based teaching on pathology of dementia, challenging behaviour and supporting ADLs		Improvement in knowledge
Proctor, 1999 UK (8)	7 one hour seminars on dementia and behaviour management	Weekly assistance in designing care plans	Reduction in depression and improvement in cognitive function in residents; reduction in number of visits by GP to residents
Ripich, 1995 USA (3)	Six 2-hour modules on communication skills supported by video-taped examples		Improvement in knowledge and attitudes relevant to face-to-face communication
Rosen, 2002, USA (6)	12 one hour interactive computer based training modules improving knowledge of ageing, depression and dementia		Improved knowledge about ageing mental health and dementia
Roth, 2002, USA (7) same intervention and subjects as Burgio 2002	Five 1 hour sessions on behaviour management and communication with focus on verbal prompts and positive comments	3 weeks of on-the-job training from staff who themselves had received training	Increase in positive statements and improved one step commands
Schindel-Martin, 2005, Canada (3)	Seven 30 minute teaching sessions designed to manage physical self-protective behaviours		Staff rated themselves as better able to manage self protective behaviours and they performed better in simulated scenarios

Smyer, 1992, USA (4)	Five 90 minute classes at one month intervals aimed at reducing problem behaviours	Review of training material with supervising staff; job redesign to increase responsibility and contribution	Improvement in knowledge
Stevens, 1998, USA (2)	5 hours over 3 consecutive days on behaviour management	Teaching trained nurses how to supervise performance; hands-on training including regular immediate feedback and monthly written feedback and opportunity to reflect on practice. Incentive system to apply skills	Improved announcing of activities and positive statements while assisting with ADLs
Testad, 2005, Norway (4)	One 6 hour seminar focusing on aggression and problem behaviour and alternatives to restraint; one hour monthly revision teaching for six months		Reduction in use of restraints
Teri, 2005, USA (3)	Two four hour workshops augmented by four individualised on site consultations and three leadership sessions	Reinforcement and enablement is expected but not actually part of the described intervention	Reduced levels of affective and behavioural distress in residents. Staff reported less adverse reactions to residents' problems and more job satisfaction
Wells, 2000, Canada (7)	Fifteen 20-30 minutes sessions on abilities focused care and communication skills spread out over 6 months.		Improved verbal skills, personal care, relaxed manner, and social/flexible behaviours. Residents showed more verbal interactions, less agitation, and improved function
Wilkinson, 1999, USA (0)	One day workshop on managing 'assaultive' behaviour followed by an unspecified number of training sessions on dementia, triggers for aggression, importance of reporting assaults and assessing individuals	Full support for training from all tiers of management and service provision; follow-up dedicated training with specialist nurse on ward	Increased reporting of incidents of assault led to increased funding to improve staffing levels
Williams, 1994, USA (1)	One 50 minute session on managing aggressive behaviour, emphasis on empathy, understanding dementia and behavioural management skills		Reduction in incidence of 'combative' behaviours in two residents

Additional references

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Schindel-Martin L, Morden P, Cetinski G, et al (2003) Teaching staff to respond effectively to cognitively impaired residents who display self protective behaviours. *American Journal of Alzheimer's Disease and Other Dementias* **18**: 273–81.

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