Supplementary Material 10 Analysis of intervention content and gaps that address issues identified in Review 1: experiences of care in hospital for Plwd and the hospital staff and carers who care for them

Intervention study (Reviews 2 and 3)	**Line of argument from Review 1: *A change of hospital culture is needed before PCC can be provided***								**Gaps in Review 1**
	Workforce capacity to meet psychological and physical needs of Plwd				**Inclusive approaches to carers**	**Physical environments**		**Systems for sharing knowledge and information**	
	Performance indicators and ward cultures that prioritise psychological needs alongside physical needs	Staff/volunteers/students trained in meeting needs of Plwd	Routine structured around needs of Plwd as well as staff	Increasing recognition for dementia care		Physical environments that support familiarisation	Capacity on wards for social interaction and activities	Culture of sharing knowledge between peers and across hierarchies and roles	Systems of documentation about individual needs of Plwd
Intervention category: Improving staff information, knowledge and skills (total: n=14, Review 2: n=5; Review 3: n=12. Smythe 2014{Smythe, 2014 #83} Schindel 2016{Schindel Martin, 2016 #80} and Naughton 2018{Naughton, 2018 #69} included in both Reviews 2&3)									
Asomaning**{Asomaning, 2016 #107}** (Review 3)									
Intervention content	Institutional support: After needs assessment, the hospital's Geriatric Steering Committee committed to support innovative initiatives and solutions in improving the care of older patients with behavioural disturbances; and staff's ability and comfort in working with these patients and their families	Development of educational programme & Training GPA approach to care							
Review 3									
Outcome measure		1.Confidence in providing care (self-efficacy survey)							
Effectiveness		1.non-significant increase in self-efficacy scores							
Galvin{Galvin, 2010 #118} (Review 3)									
Intervention content		Development of educational programme & Training							
Review 3 *Outcome measure*									

Effectiveness		1.Confidence in providing care in 4 community hospitals 1. Post-programme overall confidence level was significantly higher than baseline and at four months authors reported confidence scores remained stable in three of the hospitals but significantly dropped compared to immediate post-programme scores in one of the hospitals
Horner 2013{Horner, 2013 #52} (Review 2)		
Intervention content	Experienced nurse educator brought onto the ward to deliver the intervention	Education package (evidence based care for medical inpatients with confusion) for staff Nurse educator provided post-education debriefing and on ward support
Review 2 *Experiences of interventions*	Staff perceived that issues of staffing and time were the main barriers to participation	Only six of 26 staff who consented to participate (out of 60 eligible staff) completed the intervention demonstrating limited feasibility Authors attributed low completion to lack of availability of junior staff to work online during working hours Staff who completed the training felt more confident about managing Plwd Staff perceived that practice on the ward changed, with people trying different strategies to resolve responsive behaviour in Plwd before resorting to medication
Naughton 2018{Naughton, 2018 #69} (Reviews 2&3)		
Intervention content	Students added capacity to the wards	Students received dementia training based on VERA

		framework; older adult unit placement Follow-up reflective discussion and feedback from mentors during clinical placement		
Review 2 *Experiences of interventions*	Students developed personal relationships with Plwd to provide psychological comfort, and drew on knowledge of the person to relieve psychological discomfort Students perceived that constant staff changeover increased agitation; inadequate staff:patient ratios meant there was a lack of time to provide PCC The presence of staff who either provided PCC or did not either legitimised what students had learned about PCC, or acted as a barrier to them providing it	Because of training, students described noticing staff who ignored Plwd while providing physical care, demonstrating their awareness of PCC Students struggled to apply their training in PCC when a Plwd was agitated, but described adapting these creatively. They said they did not follow modelling by staff because they often were not providing PCC	Students observed a continuum of care for Plwd on the ward, however they said their experiences seeing staff who ignored Plwd while they provided physical care 'tainted' their perceptions about providing care for Plwd in hospital Students felt helpless in the face of no time to engage or validate Plwd, which had been the foundations for PCC they had been taught	Students found there were no activity/distraction resources available for them to use to occupy Plwd
Review 3 *Outcome measure*		Study rationale: Plwd have complex communication needs, especially during acute hospital admissions, and the best way to promote practice change is to embed fundamental skills during core training of nurses who will work in that system 1. Ability to identify person-centred responses, 2. Confidence with dementia communication, 3. Confidence in providing care 1. IV group students more likely to identify opportunities for person-centred responses, but 2. no		

Effectiveness		difference btw groups in confidence with dementia communication or 3. Confidence in providing dementia care
Palmer 2014{Palmer, 2014 #129} (Review 3)		
Intervention content		Development of educational programme & Training Documentation: Binder with slides and handouts of important info given to trained staff PCC approach to care
Review 3 *Outcome measure* *Effectiveness*		1. Confidence 1. Significantly increased confidence for all questions and overall scale score at 4 months compared to baseline
Sampson 2017{Sampson, 2017 #130} (Review 3)		
Intervention content	Hospital medical and nursing directors contacted; orgs identified key staff to deliver dementia training locally	Train-the-trainer program & each hospital developed bespoke package for staff training
Review 3 *Outcome measure* *Effectiveness*		1.Confidence (competence in dementia care) 1.Significantly yet small increase in confidence in providing care in all sub-scales at 3 months, the largest being 'building relationships'
Schindel Martin 2016{Schindel Martin, 2016 #80} (Reviews 2&3)		
Intervention content	Certified GPA coaches, teaching partners on the ward	Gentle Persuasive Approach (GPA)

		educational program (for staff) Staff teaching partners supported implementation and sustainability of GPA in their practice units Coach training (for staff teaching partners) manual provided to all participants		
Review 2 *Experiences of interventions*	Staff perceived that workloads meant staff had to choose between caring for physical or psychological needs, and that physical needs were prioritised, which was a barrier to PCC for Plwd Staff said when working with peers who had not received training for PCC, that this acted as a barrier to them providing it	Staff found that by understanding the preferences of Plwd, they were able to resolve disruption without medication or restraints by meeting the needs of Plwd	Staff perceived the availability of training in care for Plwd across all staff reflected the organisations' concern for their wellbeing and safety (rather than just telling staff not to use restraints). Staff expressed appreciation and felt it was a valuable opportunity	GPA training was provided across disciplines and staff perceived the training resulted in a new way of working because of shared perceptions of staff across the ward about how to care for Plwd
Review 3 *Outcome measure* *Effectiveness*		1.Confidence 1.Significantly greater confidence in providing care reported by the IV group receiving the GPA programme compared to wait-listed group 6-8 weeks post-IV		
Smythe 2014{Smythe, 2014 #83} (Review 2&3)				
Intervention content	Added capacity on the ward: Mental health nurse and 2 general nurses sited on the ward to administer the intervention	Brief psychosocial training intervention (BPTI) was given on the ward; each training session was followed by working alongside staff member and subsequent feedback and reflection Didactic teaching about dementia as comparison		

		Manual to ensure implementation fidelity		
Review 2 *Experiences of interventions*	Lack of staffing levels and time prevented implementation – there were not enough staff available to allow group learning; time needed for one-to-one teaching was considerably greater than planned and rendered the intervention unfeasible	Staff who had received training reported feeling more confident in their ability to understand and meet the needs of Plwd		Lack of communal spaces made group learning difficult, preventing benefits of modelling and group teaching
Review 3 *Outcome measure* *Effectiveness*		1. Confidence, 2. Attitudes, 3. Burnout Authors reported positive trends but inconclusive results in 1. confidence levels following training, 2. attitudes, and 3. burnout scores due to small sample size		
Surr 2016{Surr, 2016 #134} (Review 3)				
Intervention content	Existing special knowledge utilised: Peer facilitators tasked with onward delivery of the Foundation level program to other staff	Train-the-trainer day with the task to deliver the program to other staff PCC approach to care		
Review 3 *Outcome measure* *Effectiveness*		1. Confidence (caring efficacy), 2.Attitudes towards Plwd, 3. Satisfaction in caring 1.Significant increase in confidence after the intermediate-level training compared to baseline but not after the basic half-day foundation-level training, 2. Staff attitudes improved over time, and the significant		

		change was already evident after the half-day foundation training, 3. basic training not associated with sig change, but the intermediate level training over three days was associated with significant increase in staff satisfaction in caring					
Wilkinson 2016{Wilkinson, 2016 #92} (Review 2)							
Intervention content	Consultant and registrar support Junior doctors who self-trained as dementia champions on a geriatric ward retained this role in subsequent rotations	Junior doctors were supported by a senior staff member and through peer learning to develop knowledge and systems to provide dementia-friendly support to Plwd		Information leaflets for families; Car parking permit;			• "Eight things about me" carer provided information • Hospital passport • "Eight things about me" carer provided information form; • Forget-me-not scheme Patient identifying stickers for ward patient lists
Review 2 *Experiences of interventions*	Staff turned to junior doctor dementia champions for advice about how to provide care to Plwd	Junior doctors expressed increased confidence about their ability to provide good care to Plwd Authors concluded that through their learning they moved past a 'threshold' – starting from the assumption that PCC takes longer, junior doctors developed the perspective through changed practice that PCC took less time in the long run	The role of dementia champion provided a means for junior doctors to develop special knowledge, practice leadership skills and engage academically through conference presentation. Authors conclude the benefits offered by the role to their careers was a motivating factor in involvement	Data about carer perceptions wasn't collected		Peer-learning created a motivating dynamic that resulted in a successful, practice-changing initiative	Data about perceptions of the use of this data wasn't collected
Luxford 2015{Luxford, 2015 #124} (Review 3)							
Intervention content	Local imp team; flexible approach to local nomination of wards within the hospital was taken to ensure local 'buy-in' by allowing clinicians to consider where best to implement TOP 5	Training in the use of TOP 5 Toolkit (TOP 5 forms, background information, promotional material for local use)		Information for carers: brochures for family and carers Clinician-carer: Mutual development of management strategies to aid communication and support personalised care,			One-page form attached to patient chart at the bedside
Review 3							

Outcome measure *Effectiveness*		1.Confidence in caring for Plwd, 2.Medication use 1. Increased confidence after the introduction of TOP 5, 2. significant reduction in use of antipsychotics in a major metropolitan hospital, and a decrease in the use of Risperidone Quicklets in a principal referral hospital	1. Satisfaction with clinician communication 1. Higher satisfaction ratings (staff made carer feel comfortable to provide info about patient, staff listened and took notice of info provided by carer) compared to carer evaluations of hospital admissions without the TOP			
Mador 2004{Mador, 2004 #125} (Review 3)						
Intervention content	Existing special knowledge utilised: Extended Practice Nurse (EPN) formulated management plans	EPN provided ongoing support and education for the nursing staff to enable them to carry out the strategies		EPN discussed the plan with the ward nursing staff and then provided ongoing support and education for the nursing staff to enable them to carry out the strategies	patient consultation, tailored management strategies plans	
Review 3 *Outcome measure* *Effectiveness*		Study objective: To determine whether individualized advice on non-pharmacological strategies for hospitalized older patients with confusion and behavioural problems can improve levels of agitation and reduce the use of psychotropic medication 1.Levels of agitation, 2. satisfaction with care, 3. Satisfaction in caring, 4. Appropriateness of medication prescribing, 5. Total doses of med.use 1.both IV and control groups improved over time, and there was no significant difference btw				

		groups, 2.not effective in improving carer satisfaction with the nursing and overall care their relative received, 3. Not effective in improving nursing staff satisfaction in caring, 4. No IV effect on appropriateness of psychotropic medication prescribing or 5. total doses of antipsychotics or benzodiazepines administered		
Miller 2004{Miller, 2004 #126} (Review 3)				
Intervention content	Non-specialist capacity added: elder care assistants- ECAs (undergraduate students)	Training for staff and ECAs	Information for carers: elder guide (3 components dispensed verbally by the staff and ECAs, in writing in a booklet entitled, "Thank You for Coming": 1) the family as valued members of the health-care team, 2) explanation of the physical environment with descriptions of common equipment and treatment devices, and 3) financial and transportation assistance (e.g., meal and parking vouchers) Inclusive approach: encouraged to stay with patients and provide physical care at their level of comfort	Client profile based on carer information (patients' routines of rest and physical activity, preferences for foods and diversional activities, personal history including preferred name, and particular manifestations of discomfort) to be used by nursing staff to individualise the care protocol Props: coloured copy of the ECSIP intervention along with each patient's client profile was placed in the front of the nursing records
Review 3 *Outcome measure* *Effectiveness*	1.Discomfort 1. Small yet not clinically or statistically significant reduction in discomfort levels from admission to 24 hours before discharge			
Beernaert 2017{Beernaert, 2017 #109} (Review 3)				

Intervention content	Ongoing training and support: 2-day training package to help healthcare staff in educating and supporting their colleagues in using the care guide in a correct and compassionate way Documentation: care guide to follow	**I**nformation for carers: 3 leaflets about entering the dying phase, grief and bereavement, and facilities available on the acute geriatric ward
Review 3	Link with training to deliver good end-of-life care	
Outcome measure	Quality of communication 1. btw staff& carers, and 2.btw staff & patients as assessed by family, 3. Communication among clinical staff, 4.Comfort, and 5. Symptom management for Plwd, 6. Symptoms and care needs in the last 3 days of life	
Effectiveness	1. No evidence for the effectiveness of the care guide programme on communication between staff and carers or 2. communication between staff and patients across a number of questionnaire items, 3. Based on nurses' assessments, doctors of patients in the IV group were more likely to be informed about the impending death of the patient than those in the control group; no other sig.differences for communication among clinical staff 4. improved patient comfort while dying for IV group compared to controls when assessed by nurses but not when assessed by carers, 5.	

		No differences btw groups for symptom management, but 6.fewer symptoms and care needs in the last 3 days of life for patients in the IV group compared to controls (assessed by nurses)	
Intervention category: Activities for Plwd (total n=7; Review 2: n=2; Review 3: n=6. Daykin 2017 in both reviews)			
Cheong 2016{Cheong, 2016 #192} (Review 3)			
Intervention content	Specialist capacity added: board certified music therapist		Activity: Music therapy
Review 3			Study rationale: Music therapy has been used to improve engagement and decrease agitation in Plwd mostly in long-term care settings, and it may hold promise in acute care settings
Outcome measure			1.Patient engagement, 2. Mood
Effectiveness			1. Increased constructive and passive engagement (e.g. motor or verbal behaviours in response to the activity) and decreased self- or non-engagement (e.g. purposeless behaviour involving engagement with self, staring into space) observed during music sessions compared to sessions without music 2.Higher frequency of positive mood ratings (general alertness and pleasure) and lower observances of negative mood states (anxiety, anger, sadness) during music sessions compared to sessions without music
Daykin 2017{Daykin, 2017 #36} (Reviews 2&3)			

Intervention content	Specialist capacity added: Orchestral musician trained to work with Plwd provided the intervention	Carers could attend music sessions	• Participatory music (reminiscence, song-writing, composing, singing, playing instruments) • Activity room		
Review 2 *Experiences of interventions*	The priority given to physical care was evident on the ward, where medical staff interrupted music sessions in order to provide routine physical care to Plwd. Eventually the facilitators hung 'Do not disturb' signs on the doors to prioritise the activity sessions		Music most therapeutic to Plwd was meaningful because it was linked to past experiences Staff perceived improved mood in Plwd related to the music group, due to enjoyment of the activity itself, and due to the relief of boredom		
Review 3			Study rationale: Art therapies including music can help to reduce behavioural problems and promote communication and connection with others		*Note: additional outcome- staff absences*
Outcome measure *Effectiveness*	1. Medication prescribing rates (staff outcome) 1. Ward-level data showed an approx. 4% decrease in the number of patients prescribed antipsychotic drugs during the intervention time period (time B) compared to the usual care period (time A). A 28% decrease in the number of antipsychotic drugs was also observed on the day of the music activity (Tuesday, time B) compared to time A.		[NB see left column for 1 more outcome] 1. Mood, 2. BPSD (Plwd) 1. Happiness scores increased by the end of each music session, and the impact on engagement, distraction and relaxation was also consistently positive (although no reporting of statistical comparisons), 2. Authors reported reduced agitation of participants at the end of each session, although authors did not provide additional comparative data.		*Reduction in staff absences was observed for the 2-month period with music sessions compared to the 2-month period without music activity on the ward. However, authors reported a slightly higher number of staff absences on the actual day of the music activity between the two periods.*
DiNapoli 2016{DiNapoli, 2016 #116} (Review 3)					
Intervention content	Existing special knowledge utilised: social worker to assist with discharge planning		Activities: most frequently delivered: reminiscence/life review, casual conversation	Documentation: Personal interests and functional status assessed with the Assessment Tool for	

				puzzles/cards/board games, listening to music, doing art	Individualizing Activities
Review 3 *Outcome measure* *Effectiveness*				Study rationale: behavioural symptoms are an indication of unmet social needs. Interventions that increase participant's engagement in meaningful social activities will likely improve QoL and decrease BPSD 1.QoL, 2. BPSD 1. no improvement in QoL (self- or proxy-reported) 2. lower scores on BPSD but no significant group differences post-IV	
Gitlin 2016{Gitlin, 2016 #119} (Review 3)					
Intervention content	Existing special knowledge utilised: assessment and activity planning by OTs	Training Activity prescriptions were placed in patients' medical records for all staff to review	Interview with family about patient roles, habits, interests Information for families: reviewing assessments & activities for home use	Activity prescriptions conveying patient capabilities and deficits, the targeted activity, activity schedule, and specific instructions for implementation	Patient assessment by OTs
Review 3 *Outcome measure* *Effectiveness*				Study rationale: Activities tailored to interests and abilities of Plwd may be useful by aligning cognitive/functional capacity with environmental expectations and enable individuals to positively re-engage in their environments 1. Patient engagement, 2. Mood 1. Increased positive gestures (smiling) but decreased positive statements compared to baseline behaviours. A decrease in negative statements and	

				nonverbal behaviours was also observed (e.g. repetitive statements, verbal aggression, motoric or facial disturbances). 2. Increased pleasure, and decreased alertness and negative mood states in intervention sessions compared to baseline (stats not reported)	
St John 2017{St John, 2017 #86} (Review 2)					
Intervention content	Activity coordinators were brought onto the ward to train staff and deliver Namaste care	Teaching sessions for staff with information about dementia and Namaste Care, and planning around implementation	Ward staff encouraged to liaise with families to inform and educate them about Namaste care; encouraged to bring items for reminiscence	Meaningful activity and multisensory stimulation (eg massage, aromatherapy, touch, music, colour, tastes and scents); reminiscence therapy	
Review 2 *Experiences of interventions*	Staff perceived that there was a lack of time and resources to provide person-centred care Policies for infection control acted as a barrier to staff touching Plwd, preventing that aspect of providing comfort			Staff linked activities to improved mood Namaste care improved comfort by meeting unmet needs for sensory stimulation and personal interaction	
Weber 2009{Weber, 2009 #139} (Review 3)					
Intervention content		Approach adopted: Psychodynamic, therapeutic community	Therapeutic support to carers: assessment of communication patterns btw family members	Activities: music therapy, movement therapy, psychodynamic therapy and sociotherapy	Weekly team meetings to discuss each patient's individual therapeutic project and regulate the staff's own group dynamics
Review 3 *Outcome measure*				Study rationale: BPSD may be amended with person-centred psychodynamic interventions that address the emotional needs of older Plwd 1. Therapeutic progress/engagement, 2. Behaviour (NPI) 1. Better clinical progress in group therapy across the	

Effectiveness					different time points (12+ months), 2. Significantly decreased anxiety and apathy scores across time points (12+ months)	
Intervention category: Structural interventions (total n=2; Review 2: n=2)						
Brooke 2017{Brooke, 2017 #22} (Review 2)						
Intervention content			Alzheimer's Society rep available 1x month	• On-bay nursing stations • Forget-me-not signage • Bays themed by name and colour • Flooring • Social dining area • Clocks/date signage • Colours for doors/toilets • Large photos on walls of 1950s	• Twiddlemuff • Reminiscence sessions (museum object handling; singing) • Sensory machine	"Information about me"
Review 2 *Experiences of interventions*	Nurses perceived that without adequate time/staffing to interact with Plwd, they could not take advantage of the environmental changes to provide PCC One staff member perceived that the on-ward nursing bays threatened the quality of note-writing due to distraction by Plwd. The authors suggest that the concern related to perceived discipline following inadequately written notes. This is an example of how institutional structures can create cultures where a focus on routines and tasks are prioritised over the needs of PlwD	A few staff stated they did not understand how the changes were meant to improve care for Plwd and the authors concluded this prevented them from being open to possibilities for improvement, suggesting involving staff in the intervention from planning stages might have enabled more benefit	Staff perceived that the artwork on walls created a reason for social interaction between carers, Plwd and staff, which acted as a foundation for collaboration	Staff thought that the more home-like colours and spaces produced an improvement in the behavioural and psychological wellbeing of the patients with dementia, who were perceived to be generally less agitated. They perceived it was easier to provide individualised care on the ward, and to support emotional needs Artwork on the corridor walls – historical photographs of the area – created situations for staff, patients and carers to interact At the same time, artwork could cause distress if individual Plwd made negative associations to the subject matter Nurses perceived that the on-bay nursing stations made it		

			easier for them to prevent falls; staff did not seem to perceive that it was an opportunity to provide PCC and did not link their presence with improved personal interaction with Plwd
Margot 2006{Margot-Cattin, 2006 #64} (Review 2)			
Intervention content		Access technology enabled carer access through key cards at all times	Access technology (key cards) allowed differential access to rooms/areas on the ward. Plwd were only able to access their own room, communal areas and a secure garden
Review 2 *Experiences of interventions*	Staff perceived that Plwd were calmer and less agitated, and were more able to wander safely without staff supervision, therefore staff felt some of their time was freed up.		Staff perceived that the technology improved feelings of security, autonomy and dignity for Plwd, and a sense of security for staff It had a calming effect on both Plwd and staff because Plwd were able to find their own room, and other patients were unable to have access which provided privacy Plwd did not need to seek help from staff to find rooms, they initially learned through trial and error and eventually established 'trails' Secure rooms allowed Plwd to keep personal items that affirmed their identity and offered occupation Activity was supported by the added safety of wandering, because Plwd couldn't get lost or leave, and were able to find their rooms when they needed rest Following installation the technology

			required a period of 'fixes' before it worked as needed			
Intervention category: Increasing ward capacity (total n=3; Review 2: n=2, Review 3 n=1)						
Bateman 2016{Bateman, 2016 #108} (Review 3)						
Intervention content	Institution-level support: consultation with managers & nursing staff throughout the planning phase via working group; Regular meetings were held with nurse unit managers and volunteers to monitor the program and address issues Non-specialist capacity added: volunteers Existing special knowledge utilised: supervision & support of volunteers by clinical nurse consultant (CB, first author)	Training: volunteer training program underpinned by the principles of PCC			Documentation: patient profile by volunteers with patient or their family carer recording personal preferences and social information to maximise PCC	
Review 3 *Outcome measure* *Effectiveness*	1. Medication prescribing 1. The last 15 patients were more likely to be discharged on analgesics, but no significant differences were found for use of antipsychotics, antidepressants or benzodiazepines	1. Confidence, 2. Attitudes 1. significantly increased confidence in volunteers dealing with Plwd at the 6-month follow-up, 2. significantly improved attitude scores for volunteers				*Note: additional outcome- staff stress, attitudes* *Note: No significant changes were found between pre- and post-program staff scores in stress associated with caring for people with dementia or attitudes towards Plwd – intervention did not include staff training*
McDonnell 2014{McDonnell, 2014 #65} (Review 2)						
Intervention content	Volunteers added capacity Dementia nurse specialist provided specialist guidance to volunteers on the ward	Royal Voluntary Service training programme (for volunteers) Dementia nurse specialist guided which Plwd were worked with, acted as role model	Supporting family carers and providing respite time	Diversional therapy, companionship		
Review 2 *Experiences of interventions*	Staff said they felt freed up to do work only they could do by the presence of the volunteers	All staff did not initially welcome volunteers, but issues were resolved over time. Initial familiarisation of staff	Carers perceived improved mood of Plwd because of interaction with volunteers	Staff linked increased activities (initiated by volunteers) to improved mood, behaviour and comfort for Plwd	A modification to the intervention was to establish a volunteer rota so staff knew when volunteers were coming in	

		with the intervention including roles and responsibilities of volunteers may have prevented some of the issues.		Volunteers 'walked' with Plwd, increasing companionship and safety	Volunteers valued their experiences of peer learning, as well as appreciating support from staff and the Dementia nurse Authors conclude that support from senior leadership was paramount in the implementation of the intervention	
Wong Shee 2014{Wong Shee, 2014 #93} (Review 2)						
Intervention content	Volunteers added capacity Diversional therapist created personal profile to guide volunteers	Program-specific education to volunteers Supervised patient sessions		Orientation, diversional therapy activities		Diversional assessment report ("personal profile")
Review 2 *Experiences of interventions*	Staff perceived their time was freed up because of a reduction in responsive behaviour	Had staff been familiarised with the intervention, particularly that volunteers completed training around confidentiality and signed confidentiality agreements before beginning work, as well as the nature of their roles being limited to proving companionship and diversionary activities to Plwd, the interventions might have been more successful. Training and experiences interacting with Plwd left volunteers more confident in their abilities 2 volunteers left the programme because they were unable to identify that their care was meaningful to Plwd. Authors suggest managing volunteer expectations such as how to evaluate meaningful interaction		Staff noticed that mood and behaviour improved because of interactions of Plwd with volunteers	Volunteers valued peer learning and support from the diversional therapist Perceived threat to nursing roles created conflict between staff and volunteers	Personal profiles of Plwd were meant to guide volunteers to provide individualised companionship and activities with Plwd. However, staff perceived this as sharing of confidential records with the public, and some refused to let volunteers have access; this limited the support volunteers were able to give and decreased volunteer satisfaction

		Other volunteers said the role gave them personal satisfaction because they perceived it was meaningful Staff experienced greater job satisfaction because they felt Plwd were receiving care they needed but staff were unable to provide		
Intervention category: Support for carers (total n=3; Review 1 n=2, Review 3 n=1)				
Catic 2013{Catic, 2013 #111} (Review 3)				
Intervention content	Existing special knowledge utilised: in-patient consultation & counselling by geriatricians and palliative care nurse practitioner		Therapeutic support to carers: in-hospital counselling and post-discharge telephone review Information for families: pocket-sized booklet with info on advanced dementia, decision-making approach, hospitalisation, eating problems, […], hospice and palliative care	At discharge, the ADCS team sent the patient's primary care providers a 1-page report summarizing the consultation focusing on recommendations for symptom control, goals of care, and advance care planning
Review 3 *Outcome measure* *Effectiveness*			1. Comfort 2. Satisfaction with care, 2. Quality of communication with hospital providers 1. No evidence for a beneficial effect of the ADCS on patient comfort, as assessed by carers 2. Increased satisfaction with care, and 2. Communication scores in IV group but no stats significant change (v.small sample size)	
Durepos 2017{Durepos, 2017 #41} (Review 2)				
Intervention content	Existing staff – Social workers – facilitated support groups		Information about dementia and end of life, psychoeducation provided by facilitators Carer peer support and learning	

Review 2 *Experience of interventions*	Staff perceived that they felt more confident in the skills and understanding of carers so were more willing to involve them in the care of Plwd The support group coordinator perceived the carer support group had changed the culture of the ward to one with expectations of greater involvement by carers Staff communicated a sense that their jobs were better because of the involvement of carers	Staff perceived that their lack of involvement in the intervention was a barrier, and desired information about it, and to be involved with psychoeducation	Carers perceived that because of their relationships with other carers, they got to know other Plwd, too Carers perceived that psychoeducation sensitised them to the needs of Plwd, including appreciation for their wishes/identity Carers felt empowered: significant, that they had purpose and that they achieved meaningful relationships and work on the wards. A number remained part of the support group after Plwd, in order to continue to receive support while grieving, but also as a chance to 'give back' to other carers, Plwd and the ward The support group coordinator perceived the carer support group had changed the culture of the ward to one with expectations of greater involvement by carers Carers describe a reduction of stress because of increased sense of inclusion, related to emotional support by other carers, but also hospital staff Difficulties of the group involved conflicting personalities and differing views about structure and content	Although aims for the in-hospital support group for carers was to increase wellbeing for carers, the impact went beyond these aims to strengthen relationships across the ward including with other carers, staff and Plwd, and improved the work of the ward
Woods 2014{Woods, 2014 #94} (Review 2)				

Intervention content	Volunteers (Alzheimer's Society support workers)		One-on-one consultations with Alzheimer's Society representatives Information leaflets			
Review 2 *Experience of interventions*			Staff experienced greater job satisfaction because they perceived the Alzheimer's Society volunteers were providing carers with the support they needed, but staff had felt they didn't have the capacity to give One carer experienced that burdens were less because of the AS service			
Intervention category: Special care units (total n=4; Review 2 n=1, Review 3 n=4; 1 study included in both Reviews 2{Spencer, #84} and 3{Goldberg, #120})						
Reviews 1&2: Goldberg 2014{Goldberg, 2014 #49} (qualitative observations comparing MMHU & standard care) Review 2: Spencer 2013 {Spencer, 2013 #84}(carer perceptions from interviews) Review 2: Spencer 2014{Spencer, 2014 #85} (staff perceptions from interviews) Review 3: Goldberg 2013{Goldberg, 2013 #120}; Tanajewski 2015{Tanajewski, 2015 #135}						
Intervention content	increased staff:patient ratio acknowledging additional time needed to interact with Plwd; specialist mental health nurses and activity coordinators added to the ward	Staff trained in PCC	Extended visiting hours; carers invited to take part in care	• Improved décor and signage • Personalising patient surroundings (eg. Memory box) • Noise reduction	• Programme of organised therapeutic and diversionary activities • Day room • Activity room • Sensory room	Information tool completed by carers
Review 2 *Experiences of interventions*	Staff perceived they did not have time to connect with Plwd Despite increased staffing levels, staff experienced times when patient needs conflicted, making it impossible to meet needs for all patients, and little time to interact with carers. Priorities over preventing falls took staff away from lower priority caring including providing PCC for those not at risk of falls	More carers satisfied with maintenance of dignity on special care unit than standard care Observations found that task-/routine-focused care was still most prominent, although examples of PCC were present in greater levels than standard care; greatest levels of PCC occurred in the activity room and by staff providing one-to-one care because of safety, who interacted socially with all the Plwd on the ward	Perceptions about whether carer involvement supported better attachment for Plwd were not reported, but carers expressed appreciation when they were involve in the care of Plwd Carers were not satisfied with staff—carer communication Staff perceived they did not have enough time to interact with carers in the way carers wanted to interact	PCC care was delivered in the activity room; included breakfast, activities, interactions between Plwd facilitated by the activity coordinator Findings about the Day room were not reported Carers reported satisfaction in relation to the activities for Plwd on the special care unit The authors were not sure carers knew about the Sensory	Staff expressed appreciation for mental health nurses, from whom they reported asking for advice when a Plwd was agitated. Staff perceived that the generally, strategies to cope with responsive behaviour changed on the ward because of the presence of the mental health nurses.	Carers appreciated staff requests for information about Plwd Half of the carers interviewed had been asked by staff to complete the information tool about Plwd

	Vocalisation was greater on the special care unit; authors suggest this was the result of concentration of Plwd together	while monitoring the Plwd at risk for falls Staff perceived that institutional-level factors such as performance indicators demonstrated a lack of support for PCC Staff reported new strategy of turning to peers for support when needing a break from responsive behaviour Staff perceived they were more able to provide PCC following training Staff perceived greater levels of job satisfaction in relation to PCC	Authors attribute lack of carer satisfaction with communication on the special care unit to levels of carer expectations, organisational factors, such as a task focused culture and workload, the organisations' focus on risk, shift patterns and length, a lack of training, poor supervision and resistance to change and bureaucratic issues Carers had different opinions about different staff; some positive and some negative Carers were dissatisfied with communication about discharge	room as they did not refer to it	
Review 3	Assuming it is linked to best practice model aim of paper:	Assuming it is linked to this component (training & PCC approach):			*Note: in complex IVs such as the SCUs it is hard to determine which component targeted which outcome..*
Outcome measure	1. Patient engagement and mood	1. Staff interactions meeting needs of Plwd, 2. QoL, 3.BPSD	1. Carer Wellbeing, 2. Carer Strain, 3. Carer Satisfaction with care		
Effectiveness	1. MMHU patients were more often in a positive mood or engaged (79% vs. 68%, p=0.03) and less often in a negative mood or disengaged (11% vs. 20%, p=0.05) compared to those in standard care. They also spent more time in an active state (82% vs. 74%, p=0.10) and engaging in social interactions (47% vs. 39%, p=0.06) but these between-group differences were not statistically significant.	1. MMHU patients experienced more staff interactions that met psychological and emotional needs, 2. No evidence for improvement in QoL (self- or proxy-reported), 3. No significant difference in the BPSD scores between MMHU patients and those in standard care	No evidence for a beneficial effect on carers of patients randomised to the MMHU compared to those in standard care in terms of 1. wellbeing or 2. strain. 3. Carers in the MMHU group were significantly more satisfied with overall care and specific care dimensions (feeding and nutrition, unit meeting confused patients' needs, treating patients with dignity and respect, discharge arrangements) than those in standard care. Despite that and as noted by the authors, both groups		

			had a high number of unsatisfied carers.	
Skea 1996{Skea, 1996 #132} (Review 3)				
Intervention content	Ward culture: Unit 2 emphasizing resident choice, opportunity, support and independence Specialist capacity added: mental health and other nursing staff competitively recruited for this unit	Cementing knowledge and practice, etc.: Unit 1 received feedback at 12 months		Separate units: 1 within hospital (unit 1), 1 with 4 linked house groups (unit 2)
Review 3	Linking outcomes to the approach (partnership scheme vs. community hospital)			
Outcome measure	1. Quality of staff-patient interactions, 2. Behaviour			
Effectiveness	1. Higher number of 'positive social', 'positive care', 'neutral' and total number of interactions in unit 2 at 12 months compared to unit 1. Low rates of negative interactions were observed in both units, 2.'aggressivity' was higher in patients in the unit emphasising patient choice (unit 2) compared to patients in the 'enhanced' traditional care hospital unit (unit 1), and slightly increased over the study period although no significant differences were reported between units Authors reported a non-significant decrease in staff wellbeing scores in both units at 12 months compared to baseline; job satisfaction scores in unit 2 (partnership scheme) were higher than those in unit 1			

	(community hospital ward) but p=0.06					
Tay 2018{Tay, 2018 #136} (Review 3)						
Intervention content	Non-specialist capacity added: volunteers helped to feed the patients and engage them in activities and conversations Higher staff: patient ratio	Training & Approach to guide care: In-house training workshop on enhanced medical and psychosocial care protocol-PCC	Inclusive approach to carers: encouraging family and volunteers to provide companionship Therapeutic support to carers: social workers and nurses dedicated time to explore the caregiver's coping and made attempts to encourage and empower caregivers to care better after discharge	Activities: music therapy, recreational/group activities (games, puzzles, horticultural therapy, exercises in the lounge and outdoor areas of the ward)	Documentation: patient background info via a Know Me Better form	
Review 3		Assuming it is linked to this component (PCC + trained in meeting needs of Plwd & see note) Study rationale: The CAMIE unit implemented evidence-based practice in delirium and dementia care within a PCC framework to cater for Plwd				*Note: authors discuss the factors that contributed to better outcomes in the SCU and they include both the enhanced medical protocol and enhanced psychosocial care that operationali- sed PCC, emphasising the importance of knowing patients well inc. their life histories, and responding to situational factors and unmet needs of Plwd*
Outcome measure		1. Wellbeing/ill-being, 2.QoL, 3. Agitation, 4.cost-effectiveness				
Effectiveness		1. Greater pre-post improvement in wellbeing score, 2. QoL, and 3.agitation, and 1. greater reduction in ill-being score in SCU compared to control group patients in conventional geriatric ward, 4. authors estimated additional intervention cost at 100 SGD/day & made assumptions in the estimation of QALYs, leaving the estimated cost per QALY reported (of 23,111 SGD) open to much uncertainty				

Volicer 1994{Volicer, 1994 #137} (Review 3)				
Intervention content	Specialist capacity added: Staff trained in management of Alzheimer's disease, academically affiliated part-time physicians, nurse practitioner support	Approach to guide care: SCU prioritising comfort instead of survival; palliative care philosophy	SCU homogeneously grouped in 3 units; Traditional site (comparison) patients dispersed among several sites with cognitively-intact patients	
Review 3		Assuming it is driven by the palliative care philosophy		*Note: discomfort defined as a negative emotional and/or physical state, subject to variation in magnitude in response to internal or environmental conditions*
Outcome measure		1. Discomfort (see note), 2. Cost comparison		
Effectiveness		1.SCU care was associated with significantly less patient discomfort than routine care (traditional site), 2. lower costs in the SCU group, however differences between groups at baseline, including differences in areas which may impact on resource use and cost, do not appear to have been taken into account in statistical analyses (& see note)		*Cost comparison: Guided by the palliative treatment philosophy of the SCU, patients received fewer tests and procedures and less costly medications, thus reducing the incremental cost burden of providing care to patients with advanced dementia*