

Supplementary Material 7. Outcome categories and measures within studies assessing effectiveness of interventions for hospital staff (or volunteers)

Study, design	Outcome category	Outcome measure	Definition/scale items if reported or identified
Improving staff information, knowledge and skills			
Naughton (2018) CBA	Confidence in providing care (competency in dementia care)	Sense of Competence in Dementia Care scale (SCIDS) including 17 items and using a 4-point Likert scale (range 17-68)	Sense of competence: how well they feel that they can do what is needed; Authors reported that the term and construct of sense of competence was chosen over self-efficacy to set the measure apart from existing measures that focus on stress management skills rather than competencies. The scale includes 17 items with questions trying to find out how one feels about the things staff may do in their work, such as understand the feelings of people with dementia, engage a person with dementia in conversation, offer choice to a person with dementia in everyday care (e.g. what to wear or what to do)
	Confidence with dementia communication	7-item bespoke dementia communication confidence using a 5-point Likert scale (none of the time-all the time; max score 35)	Items of the dementia communication confidence scale: 1. I feel confident I have the skills to interact with a person with dementia 2. I know how to establish a connection with a person with dementia 3. I am anxious about communicating with people with dementia 4. I have the skills to initiate a social activity with a person with dementia (when appropriate) 5. I am worried a person with dementia will become aggressive if I cannot understand them 6. I feel I can help other students to communicate with a person with dementia 7. Overall I feel prepared to communicate effectively with people with dementia
	Ability to identify person-centred responses and application of the VERA principles	14-item case vignettes (max score 14)	Four evolving case vignettes were written with 14 items in total, each item had four response options. The case vignettes were tested with 5 students not involved in the current study, who provided feedback on clarity and ease of completion. Face validity was provided by two senior clinical nurses in dementia. In addition, three people with dementia provided feedback on one of the case vignettes to examine authenticity
Schindel (2016) CBA	Confidence in providing care (self-efficacy)	10-item version of the Self-Perceived Behavioural Management Self-Efficacy Profile tool (range 10-70)	Study participants were asked to indicate their perceived level of confidence in accomplishing the clinical behaviours and tasks necessary to manage emotional stress expressed by patients with need-driven dementia-compromised behaviours

Smythe (2014) CBA	Confidence in providing care (self-efficacy)	Inventory of Geriatric Nurse Self-Efficacy (range 9-63)	Authors stated in paper that the inventory measures confidence. The measure was developed for use with professional caregivers in geriatric settings, and the inventory represented a single factor measuring self-efficacy in providing professional care for residents with dementia
	Attitudes towards people with dementia	Approaches to Dementia Questionnaire-ADQ (range 19-95)	ADQ is a validated 19-item scale designed to examine staff attitudes to people with dementia and to person-centred dementia care. It is comprised of two subscales of 'hope' for individuals with dementia (eight questions) and 'recognition of personhood' (eleven questions). The ADQ questions are rated on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree), with the total score ranging from 19 to 95 and a higher score indicating a more positive attitude
	Burnout	Maslach Burnout Inventory-MBI	The MBI designed to assess the 3 components of burnout syndrome. It has 22 items with 3 subscales: personal accomplishment (8), depersonalisation (5), emotional exhaustion (9). The items are written in the form of statements about personal feelings or attitudes, and are answered in terms of the frequency with which the respondent experiences these feelings, on a 7-point full anchored scale ranging from 0-never to 6-everyday
Asomaning (2016) BA	Self-efficacy	Self-efficacy survey	No details reported
Galvin (2010) BA	Confidence in providing care	5-item composite score using a 5-point Likert scale (range 0-5)	Five questions addressed respondents' confidence in assessing and recognizing dementia, managing demented patients, differentiating delirium from dementia, communication skills and discharge planning on a 1–5 Likert scale with anchors "Not at all" and "Extremely"
Palmer (2014) BA	Confidence in providing care	Bespoke questionnaire including 7 items to measure confidence in caring using a 5-point Likert scale	Questionnaire items: 1.Assessing and recognizing dementia 2.Managing care for dementia 3.Managing agitation 4.Differentiating delirium and dementia 5.Recognizing discharge needs 6.Communicating with person with dementia 7.Communicating with the family
Sampson (2017) BA	Confidence in providing care (perceived competence in dementia care)	Sense of Competence in Dementia Care scale using a 4-point Likert scale (range 17-68)	The scale includes 17 items with questions trying to find out how staff feel about the things they may do in their work, such as understand the feelings of people with dementia, engage a person with dementia in conversation, offer choice to a person with dementia in everyday care (e.g. what to wear or what to do)

Surr (2016) BA	Confidence in providing care (caring efficacy)	Caring Efficacy Scale (range 30-180)	This 30-item validated scale assesses staff beliefs about their own caring efficacy in terms of ability to express a caring attitude and develop caring relationships with the people they care for
	Attitudes towards people with dementia	Approaches to Dementia Questionnaire-ADQ (range 19-95) and its subscales	ADQ is a validated 19-item scale designed to examine staff attitudes to people with dementia and to person-centred dementia care. It is comprised of two subscales of 'hope' for individuals with dementia (eight questions) and 'recognition of personhood' (eleven questions). The ADQ questions are rated on a five-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree), with the total score ranging from 19 to 95 and a higher score indicating a more positive attitude
	Satisfaction in caring for PwD	Staff Experience of Working with Demented Residents Scale (range 21-105)	21-item scale measuring staff satisfaction in their work environment and in their experiences of working with people with dementia. Each item is score on a 5-point Likert scale (not at all, somewhat, a moderate amount, very much, extremely) with a higher score indicating greater satisfaction
Luxford (2015) BA	Confidence in caring for people with dementia	Survey questions on clinician perception and experiences assessing the level of confidence in caring for patients with dementia	No details reported
	Medication prescribing/use (use of non-regular antipsychotics)	Site 1: % reduction in antipsychotics expenditure per month Site 2: mg usage of Risperidone per month	For time series analysis on usage of non-regular anti-psychotics, monthly data were requested from hospitals on pharmacy stock for the 12 months prior to and 12 months during implementation. Interrupted time series analyses on the use of anti-psychotics were conducted on the individual sites that collected this information but no relevant data reported in that format
Mador (2014) RCT	Satisfaction in caring	Nursing satisfaction based on 10-point visual analogue scale	
	Medication prescribing/use (appropriateness of psychotropic medication prescribing)	Medication Appropriateness Index-MAI (% totally appropriate)	The MAI assesses drug appropriateness on ten criteria including: indication, effectiveness, dosage, correct directions, practical directions, drug-drug interactions, drug-disease interactions, duplication, duration and expense
	Medication prescribing/use	mg equivalents/day	Total daily doses of benzodiazepines and antipsychotics administered to each patient were calculated using diazepam and chlorpromazine dose equivalents

	(total daily doses of benzodiazepines and antipsychotics)		(Psychotropic Drug Directory, 2003) and averaged for the number of days they were in the study to give a final score for their benzodiazepine and antipsychotic use
Beernaert (2017) cRCT	Communication among clinical staff	Questionnaire with 4 items on quality of communication among clinical staff assessed by nurses	Communication among clinical staff assessed by nurses (in appendix, Table S12) 1. GP informed about the impending death of the patient 2. Other professional caregivers (e.g. home care nurses) informed about the impending death of the patient 3. GP contacted after the death of the patient 4. Other professional caregivers (e.g. home care nurses) contacted after the death of the patient
Increasing ward capacity			
Bateman (2016) BA	Confidence in providing care (confidence in dealing with PwD)	3-item non-validated measure of questions about confidence for program volunteers	No questions/items reported
	Attitudes towards people with dementia	Approaches to Dementia Questionnaire subscales	ADQ assesses attitude to people with dementia on a Likert scale and yields two factors: eight attitudinal questions related to hope, where high scores indicate an optimistic view of what can be done; and 11 attitudinal questions related to person-centred care, with a high score indicating understanding of the individual needs of patients
	Staff stress	3-item measure based on the Carer Stress Scale using a 5-point scale	Respondents report on a 5-point scale how stressful they find caring for patients with delirium/dementia, including where there is challenging behaviour. No more details in paper
	Medication prescribing/use	Number (%)	Number of times antipsychotics or other psychotropic medications (antidepressants, benzodiazepines) were administered, and use of analgesics for the 15 first and last admissions
Activity-based interventions			
Gitlin (2016) TS	Readiness to use tailored strategies	Investigator-developed Readiness Index, with a score from 1= Pre-contemplation to 4=Action/Maintenance	Readiness Index developed based on the Transtheoretical Behaviour Change framework. No more details provided
Daykin (2017) BA	Staff absences	No more detail available- Assuming number of staff absent?	Staff absences were measured during each period (A and B) and on a Tuesday when the music session was performed, i.e. duration of the ten week music project (period B) and the equivalent period in the same location the previous year where no music activity was taking place (period A)

	Medication prescribing/use (prescribed antipsychotic drugs (n))	% change	Number of patients prescribed antipsychotic drugs during stay
	Medication prescribing/use (prescribed antipsychotic drugs on music activity day (n))	% change	Number of patients prescribed antipsychotic drugs on music activity day (Tuesday)
Special care units			
Skea (1996) BA	Job satisfaction	Short form of the Minnesota Satisfaction Questionnaire-MSQ	The Short-Form MSQ consists of 20 items from the long-form MSQ that best represent each of the 20 scales. Factor analysis of the 20 items resulted in two factors--Intrinsic and Extrinsic Satisfaction. Scores on these two factors plus a General Satisfaction score may be obtained
	Staff wellbeing	General Health Questionnaire (GHQ)	28-item General Health Questionnaire (GHQ)
Other category			
Araw (2015) Retrospective cohort	Medication prescribing/use	Proportion of patients taking particular medications before and after a palliative care consultation	Medications included analgesics, antipsychotics, cardiac meds, antibiotics, antiemetics