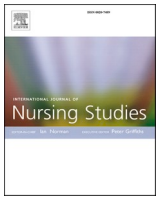
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Interventions to involve people identified as having cognitive impairments in nursing care decisions in acute hospitals: A systematic literature review

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ABSTRACT

Background: People identified as having cognitive impairments experience care inequalities in hospital including avoidable deaths. This is partly attributable to exclusion from care decisions.
Objective: This systematic review aimed to systematically identify, describe and analyse reports that evaluate interventions to involve people identified as having cognitive impairments in nursing care decisions in acute hospital settings.
Design: Systematic literature review.
Methods: Nine databases were searched from inception to July 2025 for peer-reviewed studies in the English language. Eligible designs involved studies using research methods to assess the impact of interventions. Quality review checklists were used to assess study quality. Relevant data was extracted for further analysis. Quantitative data was synthesised through a narrative approach, tabulation and (where required) calculation of key descriptive data. A thematic approach was used to analyse qualitative data.
Results: 26 papers describing eleven interventions met inclusion criteria. Seven interventions focused on the care of people living with dementia, three on care for people with learning disabilities and one on care for stroke survivors with aphasia. No eligible studies described relevant interventions for people with cognitive impairments following traumatic brain injury, brain tumour or cancer. Type and complexity of intervention and study quality varied considerably. Interventions aimed to increase involvement in decisions through staff communication training, tools to assess or support unmet needs or communication, wards prioritising patient choice and independence, and the appointment of specialist or additional staff. The impact on patient involvement in care decisions was only assessed for five of the 11 interventions. Staff reported some improvements in pre-conditions for involvement, including increased confidence or knowledge, but the impact of interventions on involvement in decisions when measured was inconsistent or limited, with exclusionary practice persisting. Authors highlighted the systemic difficulties of increasing patient involvement in decisions in the acute care environment.
Conclusion: The impact of interventions on the involvement of people living with dementia, people with learning disabilities and stroke survivors with aphasia in nursing care decisions in hospital is inconsistent, limited in practice or unknown as not measured. Further research is needed to explore the safety and impact of adaptations to hospital care, such as 'slow streaming' approaches, Hospital at Home or virtual wards. There is a need for more research into interventions to improve involvement in nursing care decisions in acute hospitals for people with aphasia and people with cognitive impairment following traumatic brain injury or a brain tumour or cancer.
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What is already known

- People identified as having cognitive impairments experience poorer care in hospital, including avoidable deaths
- This is partly due to poor inclusion in decision making at the ward level, including missed communication of unmet needs, which can lead to missed signs of deterioration and other safety risks
- Despite similarities in care inequalities and processes that disrupt involvement in decision making, no systematic review to date has focused on interventions to improve involvement in nursing care decisions in acute hospitals for people identified as having a cognitive impairment across different patient groups

What this paper adds

- This is the first systematic review to analyse research on interventions to increase involvement in nursing care decisions for acute hospital patients identified as having cognitive impairments
- The ultimate impact of interventions on patients' involvement in decision making was either not measured, inconsistent or limited
- There were significant barriers to implementing these interventions, suggesting systemic changes are needed to how acute care is organised and delivered for people identified as having cognitive impairments

1. Background

Parallel literatures are emerging that suggest people with learning disabilities, people living with dementia and stroke survivors with aphasia experience care inequalities in hospital, including exclusion from care decisions (Kitson et al., 2013; Dewing and Dijk, 2016; Care Quality Commission, 2022). All these groups experience what the Centers for Disease Control and Prevention (CDC, 2011, p. 1) defines as cognitive impairment, "when a person has trouble remembering, learning new things, concentrating, or making decisions that affect their everyday life". While this can be a useful umbrella term there are key differences between patient groups, such as length of time with cognitive impairment and the length and nature of caring relationships (Tuffrey-Wijne et al. 2013a). There is also large heterogeneity within patient groups in terms of experiences, capabilities and needs. Nonetheless, shared care outcomes experienced by people living with dementia, people with learning disabilities and stroke survivors with aphasia include higher mortality during a hospital admission, including avoidable deaths (Fogg et al., 2017; Fogg et al., 2019; Heslop et al., 2013; Langhorne and Ramachandra, 2020). There is also evidence of poorer safety outcomes including adverse events during hospital admissions (Louch et al., 2021; Friebel and Maynou, 2022; Catalán and Oliveira, 2025). The care outcomes and experiences of people with traumatic brain injury with cognitive impairments are currently understudied on acute wards after the initial injury-related admission (e.g. Kivunja et al., 2018; Oyesanya et al., 2018).

Missed fundamental care has been identified as a contributing factor to avoidable deaths and there are increased levels of dehydration, malnutrition, incontinence and reduced mobility among people with learning disabilities, people living with dementia and stroke survivors (Iacono et al., 2014; Kitson et al., 2013; Dewing and Dijk, 2016; Northcott et al., 2022). Reasons include failures to make the reasonable adjustments required under the UK's Equality Act (2010), including people choking or left without nutrition due to failures to adapt eating support (Tuffrey-Wijne et al. 2013b, 2014b; Iacono et al., 2014). The impact of these kinds of care omissions has been described by Bail and Grealish (2016) (in relation to older people with complex needs) as a 'failure to maintain' people's health during admissions (p. 153).

Missed care experienced by these groups in hospitals is partly attributable to excluding people from decision making at the ward level, not providing necessary information in an accessible way or not taking notice of non-verbal communication of unmet needs (Sowney and Barr, 2006; Clissett et al., 2013; Hemsley et al., 2016, p. 510). This includes nurses not communicating directly with people with learning disabilities (Iacono et al., 2014; Care Quality Commission, 2022; National Confidential Enquiry into Patient Outcome and Death, 2026), not setting goals around mobilising, feeding and personal cleansing with stroke survivors (Kitson et al., 2013), poor involvement or exclusion from decision making for people living with dementia (Clissett et al., 2013; Reilly and Houghton, 2019) and patients with a traumatic brain injury feeling disempowered, controlled and constrained by nursing staff during hospital care (Kivunja et al., 2018).

Reasons given for exclusion from decision making have included falsely concluding someone lacks the mental capacity for involvement based on diagnostic status (Lawrence and Kinn, 2012; Tuffrey-Wijne et al., 2014a; Kelley et al., 2021). Prioritising routines over patient preference can lead to resistance to care in people living with dementia that is misinterpreted as a lack of decision-making capacity (Reid and Harvey, 2020). Nurses can also struggle to adapt their communication to support patients' understanding (O'Halloran et al., 2012; Hemsley and Balandin, 2014; Iacono et al., 2014). When patients with communication disabilities are not supported to explain their specific care requirements, or distress is not understood as a potential communication of unmet needs (Sowney and Barr, 2006; Clissett et al., 2013), 'care and safety can be threatened' in hospital (Hemsley et al., 2016, p. 510). Nursing teams also report difficulties finding the time to communicate effectively with patients, under pressure of 'falling behind' with care tasks (Nilsson et al., 2013), although time invested can save future time over many areas of care (Abbott et al., 2021). This has an unequal impact on patients who require greater time for support, whose care is less personalised than for patients with less complex needs (Featherstone et al., 2019; McCormick et al., 2021; Hope et al., 2022) meaning staff may speak to the person's carer instead (Backer et al., 2009; Lawrence and Kinn, 2012; Kelley et al., 2021). While the involvement of carers in making decisions is important, it is not adequate. Firstly, when patients do not have proxies present, treatment decisions can be delayed (Redley et al., 2019), and signs of deterioration may be missed (Care Quality Commission, 2022), increasing the risk of poor outcomes. Secondly, families' concerns about risk can be at odds with patients' preferences (Kelley et al., 2021), and can go against advance decisions (Pecanac et al., 2018) with patients finding themselves marginalised in decision making by their carers (Miller et al., 2016).

However care providers have legal obligations under the Mental Capacity Act in the UK and the United Nations Rights of Disabled Persons Article 12 (with supported decision making) to use a range of methods of communication including nonverbal communication (Great Britain. Department for Constitutional Affairs., 2007) and to 'interpret the signs and preferences of the individual' even when they require 'total support' (United Nations, 2007). The use of an ethics of care approach has potential for providing the relational preconditions for these more inclusive practices as it requires that all people involved in care decisions are acknowledged as having needs, including people who may lack capacity to contribute (Tronto, 1993, 2013). Following an ethics of care approach requires firstly that the person's preference is known and included so care needs are understood. This may involve adapting communication or paying attention to non-verbal communications of unmet needs. Secondly that this preference contributes to the care pathway. Thirdly the person's response to care is considered to evaluate if care needs have been met (using appropriate communication and identification of non-verbal communication). Finally the outcome should be consistent with meeting that care need. This approach can help to avoid staff making assumptions about someone's needs based on their diagnosis, focusing on "supporting the person to exercise his/her legal capacity to the greatest extent possible" (United Nations, 2007).

Indeed over recent years, interventional research has emerged that explores care adaptations for people identified as having cognitive

impairments, but this tends to be siloed in diagnosis-specific literatures. Such interventions rarely isolate decision making, meaning there is a need to search within wider intervention literature purporting to be 'person-centred' or 'dementia-friendly' that may include relevant adaptations to improve involvement. Given the similarities in processes that can disrupt involvement in decision making, bringing these literatures together has the potential to identify new strategies relevant to all groups. To our knowledge this wider literature has not been previously systematically identified and synthesised.

The aim of this review is to systematically identify, describe and analyse reports that describe and evaluate interventions to involve people with cognitive impairments in nursing care decisions in hospital settings.

2. Methods

This systematic review was conducted in accordance with our protocol (PROSPERO 2021, CRD42021281224).

The four review objectives were:

i. To assess the impact of interventions on optimising the involvement of people identified as having cognitive impairments in decisions about their nursing care in acute hospital settings.
ii. To identify the enablers and barriers to implementing relevant interventions in acute hospital settings.
iii. To identify how the characteristics, strengths and weaknesses of each intervention relate to observed outcomes.
iv. To assess the extent and nature of involvement of people identified as having cognitive impairments in the development and evaluation of relevant interventions.

2.1. Inclusion criteria

This was a systematic review. Eligible designs were high quality systematic reviews of effectiveness, randomised controlled trials (including cluster randomised trials) or other quasi-experimental studies, interrupted time series and before and after studies (controlled or uncontrolled) and qualitative studies that report participant views on impact. Peer reviewed studies (including relevant PhD theses) written in the English language were eligible for inclusion. The following inclusion criteria were used, drawing on the PICO format. Full inclusion and exclusion criteria are available in Supplementary file 1.

2.2. Participants

Adults (18+) with a cognitive impairment with an underlying organic cause. This includes people with a learning disability, people living with dementia, people with aphasia following a stroke or people with another condition (such as traumatic brain injury, brain tumour or cancer) who are showing signs of cognitive impairment.

2.3. Intervention

An intervention was defined as "a systematic and coordinated approach to solving a problem using specific methods and tools with the aim of bringing about a measurable improvement" (Jones et al., 2021, p. 3) that has been used in an acute hospital setting, carried out with nursing teams (nurses and healthcare assistants) on a ward. Acute hospital mental health settings were excluded as our focus was on how exclusion from decision making impacts physical care in acute hospital settings, for example missed communication of unmet physical needs.

The intervention needed to focus on people with a cognitive impairment as the key demographic of interest with a primary aim of the intervention to improve their inclusion directly in nursing care decisions. This meant either:

a. to support the person with a cognitive impairment to participate in decision making around care, including through supporting and adapting communication and directly observing and interpreting signs of unmet care needs or care preferences in patients who find it difficult to or are unable to communicate their needs in other ways; or
b. Outcomes of the study focus on the patients' experience of inclusion in care decisions

We excluded studies where carers made proxy decisions about care on behalf of people experiencing cognitive impairments.

2.4. Outcomes

The impact of the intervention had to have been tested or evaluated using research methods in at least one paper. This included primary research that compared the outcomes of the intervention to a control condition (for instance standard or usual care). For impact, our focus was on effectiveness in maximising involvement, but we also included studies that described potential precursors to involvement (e.g. staff confidence in involving patients). Impact outcomes included quantitative and qualitative data.

2.5. Search strategy

We developed and refined our search terms with the support of our research librarian (VF). We piloted a set of terms iteratively, checking papers of interest were found with each subsequent search.

We searched the following databases: MEDLINE (EBSCO), CINAHL (EBSCO), PsycINFO (EBSCO), Cochrane Reviews, Cochrane Register of Trials, Web of Science (Core Collections), from all dates to 09.07.2025. We searched databases on the University of York's Centre for Reviews and Dissemination (CRD) (NHS HTA, DARE and NHS EED) from the inception of the database until it was no longer supported (31st March 2015). When carrying out an updated search during this period we found that the HTA database (inahta.org) was not equivalent to the previous database in terms of use of terms and MESH, so the search was not repeated there.

The search strategy, including all identified keywords and index terms, was adapted for each database and/or information source to ensure use of the relevant MESH terms and wildcard signifiers. Full search terms for each database are available in Supplementary file 2. The search combined the following blocks of terms, where each block included synonyms using the OR Boolean operator, combined with the AND operator.

Acute hospital care AND Nursing care or practice AND goal setting/shared decision making AND engagement or participation AND cognitive impairment (including lists of synonyms for specific patient groups). The goal setting block also included terms related to 'person-centred' and 'dementia-friendly' care to include a wider set of papers including potentially relevant interventions.

2.6. Study selection

Four reviewers (JH, TC, JB, EJ) screened papers by abstract and title using Rayyan (https://rayyan.ai) to record key decisions. Reviewer agreement was tested with a pilot of 30 papers. For the main review, each reviewer independently screened titles and abstracts of a subset of papers. All reviewers discussed their papers and reached a consensus on inclusion and exclusion. Full-text papers were retrieved for all papers that screened positively or about which a clear decision could not be taken (e.g. due to lack of detail).

During the full text reviews, each paper was reviewed blind by two reviewers. These reviews were followed by further team discussion to finalise inclusion. If consensus was not reached a third reviewer assessed the paper and all discussed it until consensus was reached.

Citation searching was undertaken for each included paper using the reference list and Google Scholar citations including grey literature publications related to the studies (e.g. study reports and conference abstracts). In one case the author's Google Scholar list of publications was checked when no citations were found for their included PhD thesis.

Where systematic reviews were excluded but contained potentially relevant papers, the papers included in the review were also screened.

2.7. Assessment of methodological quality

Quantitative and qualitative studies were assessed using the Critical Appraisal Skills Programme (CASP) tools to consider the quality parameters of the research (Critical Appraisal Skills Programme, 2022b, 2022a). For mixed methods studies, the Mixed Methods Appraisal Tool (MMAT) was employed (Souto et al., 2015; Hong et al., 2018). Relative quality of included studies was considered during analysis and is discussed in the findings section. Quality assessment was undertaken by TC and JH. Differences of opinion were discussed and reviewed by JH, JB and TC.

2.8. Data extraction

Four team members contributed to data extraction (JH, CB, TC, SA), with the lead author auditing extraction processes and checking for consistency. As well as extracting data from the included peer-reviewed papers, we sought and extracted further details from any other relevant materials (supplementary tables, intervention tools, ward protocols and project reports). For objective (i) we extracted study details and key outcomes relating to involvement in care decisions as described above. Quantitative studies included tabulation of the direction of differences between groups (where reported) and statistical significance. Where nursing teams were part of a wider group of healthcare workers in an intervention, only quantitative data relating to the nursing teams was extracted. Only text including relevant impact data (themes and data explicitly linked to nursing team practices or quotes from or about nursing staff care) was extracted from qualitative studies. For objective (ii) descriptions of enablers and barriers to implementation were extracted. For objective (iii) we extracted all details of the intervention described in papers (including in discussion sections) to develop a set of themes about the features present in the intervention, the strengths and weaknesses of individual features and how they were developed and implemented. For objective (iv), we extracted text describing the involvement of people with cognitive impairments in study design, conduct or evaluation. This included who was involved, how they were recruited, and the extent and nature of their involvement.

2.9. Data synthesis and integration

For objective (i), we used a narrative synthesis. Findings on impact of individual interventions were plotted against key outcome types and used as the basis for an analysis of evaluation strategies and strength of evidence for impact. For quantitative studies, we recorded, tabulated and where required calculated the average direction of differences between groups on relevant outcomes (where reported). For objective (ii), a thematic approach (Lofland et al., 2006) was used to produce a summary account of the enablers and barriers to implementing interventions of this kind. For objective (iii) we had planned to follow the Intervention Component Analysis (ICA) approach (Sutcliffe et al., 2015), but given the poor evidence or limited impact found by these studies and the wide variance in intervention elements, level of detail given and complexity, we concluded it would be inappropriate. Instead we identified the characteristics identified across each intervention and compared their impact alongside similar interventions in our narrative summary for objective (i). For objective (iv), a thematic approach (Lofland et al., 2006) was used to produce a summary account of the involvement of people with cognitive impairment in the design or conduct of the study.

3. Results

3.1. General characteristics and quality appraisal of included studies

The PRISMA diagram shown in Fig. 1 shows details of the numbers of papers retrieved, screened, reasons excluded and total number of papers included. 11 papers were included from the main search describing 9 interventions. Two further interventions described and evaluated by three further papers were discovered in additional searches including citation searching. Finally 12 additional papers relevant to the interventions identified in the main search were included through citation searching including conference papers, a PhD and grey literature such as study reports, providing further data to answer the key objectives and fuller details of interventions. In total 26 papers describing 11 interventions were included.

For full transparency following PRISMA 2020 Item 16b, reasons for excluded papers at full text review are available for the main search (Supplementary file 3) and for papers identified via other methods (Supplementary file 4). Table 1 provides a summary of the papers connected to the 11 interventions included in this review. Each intervention was evaluated by a study (either a research project or service evaluation), which sometimes spanned more than one paper (see Table 1). Designs ranged from small-scale qualitative studies to an adapted randomised controlled trial (RCT) with multiple methods of evaluation (observations, interviews, surveys, ward level outcomes). In projects where quantitative data could not be disaggregated to measure impact on nursing care at ward level it was excluded (n = 3) with only qualitative data reported. We analysed quantitative data only for one project, qualitative data only for six projects and qualitative and quantitative data for the remaining four projects. Five projects were based in the UK (two were in Scotland), two in Canada and one each in Ireland, Australia, the US and Singapore.

Index papers providing key study design details for each project were analysed using appropriate CASP checklists. Three projects raised no quality concerns (P.I.E.C.E.S.: Yous et al., 2020; Person-centred Care Package: Grealish et al., 2021; and Stroke Care Training: Read and Palmer, 2013). Two projects had major quality issues (Traffic Light Hospital Assessment: Bell, 2012; and PROACTIVE: Gilmore-Bykovskyi et al., 2021). In the Traffic Light Hospital Assessment project, the use of a qualitative design was not appropriate to the aim (assess whether the use of a hospital passport improves communication) and the sample included only one person with learning disabilities who had ever used a hospital passport. Key details were omitted including whether ethical approval was sought and how data was analysed (Bell, 2012). The PROACTIVE project had no control group, no details were shared about the full survey wording or components, one scale reported was biased toward positive outcomes while another had no neutral midpoint and there was a lack of clarity about consent processes (Gilmore-Bykovskyi et al., 2021). The CAMIE project had moderate-level concerns in that the health professionals involved in administering the study measures were also involved in providing the care (Tay et al., 2018). In the Team project although researchers could not be blinded to the intervention, appropriate measures were taken to counteract that (for instance blinded follow-up assessment) (Goldberg et al., 2013a). The LDLN Ireland project raised minor concerns as although a recognised analytical approach was used, limited details were given (MacArthur et al., 2015). Finally, in three projects qualitative and quantitative elements could have been better integrated (Gentle Persuasive Approaches online education: Crandall et al., 2022; LDLN Scotland: MacArthur et al., 2015, Distress Recognition Tool: Crowther, 2017).

3.2. Interventions

No studies met the inclusion criteria for people with cognitive impairments following traumatic brain injury, brain tumour or cancer. Seven interventions focused on the care of patients living with dementia,

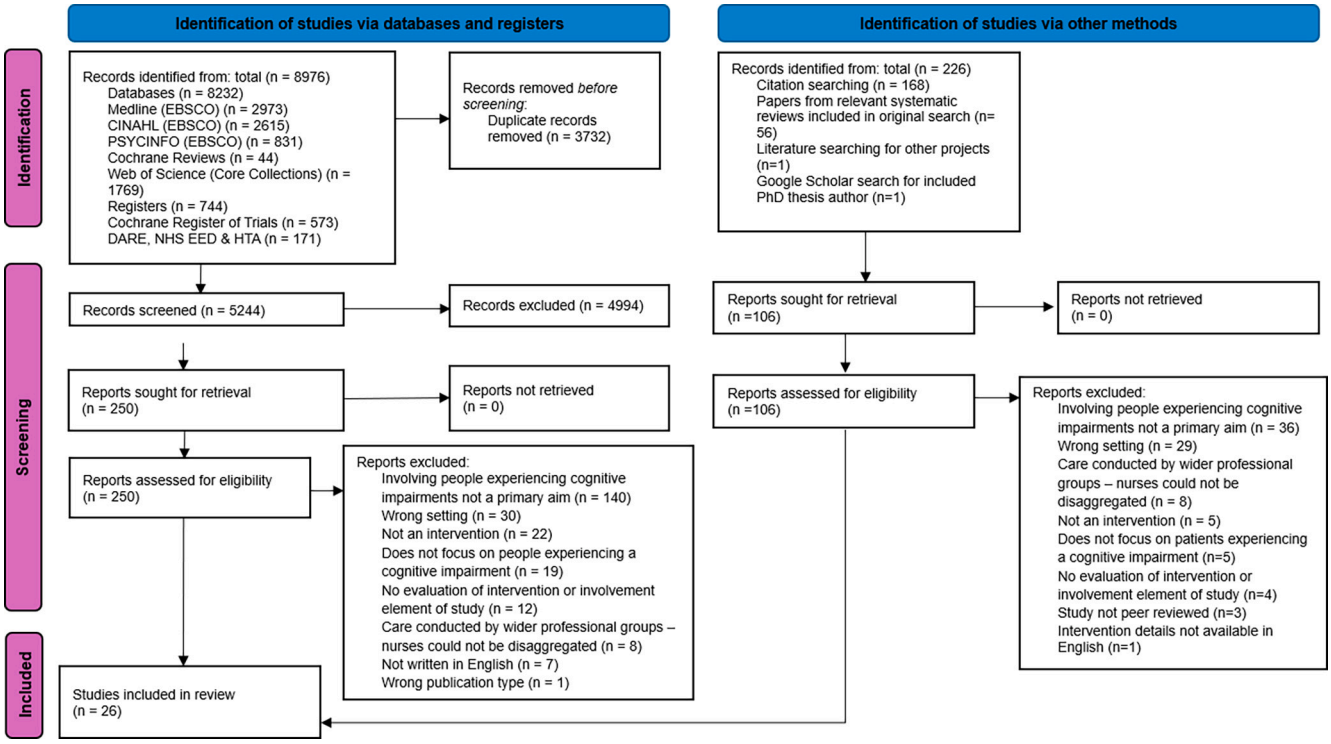


Fig. 1. PRISMA diagram.

three with people with learning disabilities and one with stroke survivors with aphasia. Table 2 provides a summary of the intervention elements that aimed to increase involvement in care decisions for each intervention. These link directly to our definition in the introduction, specifically: elements that support the understanding of needs and responses to care and/or of adapting care delivery to meet these identified needs. These elements were mostly embedded in wider efforts to improve the quality of care or care outcomes. As shown in Table 2, there were three elements that related to supporting understanding of needs and responses to care. Firstly training including communication adaptations and techniques (Ross et al., 2009; Brown et al., 2012; Russell et al., 2015; Grealish et al., 2021), how to use tools that support communication (Russell et al., 2015; Crowther et al., 2020) or assessing or reframing 'reponsive' or 'challenging' behaviour as communication of unmet needs (Tay et al., 2018; Yous et al., 2020; Gilmore-Bykovskyi et al., 2021; Crandall et al., 2022). Secondly tools to support identification of needs. These included the Distress Recognition tool (Crowther et al., 2020), checklists to identify underlying needs (Gilmore-Bykovskyi et al., 2021), forms collecting individualised communication adaptations or pain or stress responses (Bell, 2012; Russell et al., 2015; Gilmore-Bykovskyi et al., 2021; Grealish et al., 2021) or the picture communication system Talking Mats (Russell et al., 2015). Thirdly personalisation or adaption of care delivery on the ward. This included centring patient needs over tasks (Tay et al., 2018), incorporating distress or needs identification tools into existing systems (Crowther et al., 2020; Gilmore-Bykovskyi et al., 2021), or using 'person-centred approaches' that included adapted verbal and non-verbal communication (Harwood et al., 2010). Some interventions also provided needs-focused care delivery outside ward routines. This included opportunities to take showers or be given food or snacks outside existing ward routines (Russell et al., 2015; Tay et al., 2018). Finally the employment of new staff or additional staff time intended to support both understanding of needs and responses to care and adapting care delivery to meet an identified need. This included specialist staff to provide advice to ward staff on communication, consent, involvement in decisions and adaptations to care delivery (Macarthur et al., 2009; Harwood et al., 2010; Ní Riain and Wickham, 2024), and/or additional staff on ward to identify needs, respond to them and monitor responses to care (Harwood et al., 2010; Tay et al., 2018).

3.3. *Involvement of patient groups in the development and evaluation of interventions (Objective 4)*

There was very limited involvement of patient groups in the development of interventions (Objective 4). One project included people with aphasia in their working party (Read and Palmer, 2013) and four to six people with aphasia were part of an informal question and answer session during the staff training sessions (Ross et al., 2009; Read and Palmer, 2013). Another study described the involvement of a 'consumer' in their reference group (Grealish et al., 2021), although it was unclear if they were a family member or a person living with dementia. One study drew on learning from prior studies that had included patients living with dementia carried out by members of the research team (Goldberg et al., 2014).

Only five projects evaluated the experiences or included the views of the relevant intervention patient group in relation to involvement in decision making (Objective 4). Three included audits of tools used with patients to identify distress, distress triggers or pain (Goldberg et al., 2013a; Crowther et al., 2020; Gilmore-Bykovskyi et al., 2021) and one also included direct observation of patient care (Goldberg et al., 2013a). Three included interviews with a relatively small number of people with learning disabilities or people living with dementia when compared to the involvement of staff or carers (Macarthur et al., 2010; Goldberg et al., 2013a; Bell, 2012).

3.4. *Impact of interventions on optimising the involvement of people with cognitive impairments in decisions about their nursing care (Objective 1)*

Data related to patient involvement in nursing care decisions and the preconditions for involvement outlined in the introduction and intervention descriptions was extracted and analysed. Fig. 2 presents these outcomes in a logic model format. The first two columns describe

Table 1
Details of peer-reviewed papers included.

Patient group	Intervention	Paper	Design	Sample	Setting
People living with dementia	Care for Acute Mentally Infirm Elders (CAMIE)	(Tay et al., 2018)	Mixed methods design. 2 × 2 prospective cohort study comparing specialist ward with standard care ward (pre- and post-quantitative outcomes).	People living with dementia in the CAMIE ward (n = 170) compared with people living with dementia in the standard care ward (n = 60).	Specialised dementia unit and general geriatric care in an acute hospital in Singapore
		(Cheong et al., 2021)	Mixed methods design. Exploratory qualitative study using face-to-face semi-structured interviews.	Qualitative interviews with 10 nurses (all nurses on CAMIE ward)	Specialised dementia unit and general geriatric care in an acute hospital in Singapore
	Distress Recognition Tool (DRT)	(Crowther, 2017) PhD thesis	Mixed methods pilot study combining quantitative outcome measures, frequency of use of tool, observation of ward processes and qualitative interviews	Audit of DRT with 32 patients. 10 qualitative interviews (3 carers, 3 support workers, 2 nurses, 1 ward manager, 1 hospital consultant).	Two single sex wards (one male, one female), which specialise in elderly medicine at a large teaching hospital in the UK. Both wards care for a high proportion of people with comorbid dementia
		(Crowther et al., 2020)	Mixed methods pilot study combining quantitative outcome measures, frequency of use of tool, observation of ward processes and qualitative interviews	Audit of DRT with 32 patients. 10 qualitative interviews (3 carers, 3 support workers, 2 nurses, 1 ward manager, 1 hospital consultant).	Two single sex wards (one male, one female), which specialise in elderly medicine at a large teaching hospital in the UK. Both wards care for a high proportion of people with comorbid dementia
	Gentle Persuasive Approaches online education	(Crandall et al., 2022)	Mixed methods longitudinal pre-post design before and after training programme including 1. a survey and 2. one focus group. *Quantitative data excluded from analysis as nursing staff data could not be disaggregated.*	1. Ninety-four staff employed on five medicine units who had completed the mandatory GPA eLearning programme (n = 82). Fifty-five were nursing staff. 2. One focus group (n = 8)	Staff employed on five medicine units at a Canadian hospital.
	Person-centred Care Package	(Grealish et al., 2021)	Exploratory convergent mixed methods design combining interviews and pre- and post- intervention surveys.	Interviews: family carers (n = 5), nurses (n = 18). Surveys (all nursing staff): pre- intervention (n = 53), post-intervention (n = 46); Pre-control (n = 49), post-control (n = 35).	Four units of a tertiary health service (state funded), two intervention units (a Medical Assessment Unit [MAU] and an Acute Care of the Elderly [ACE] unit) and two comparison units set in southeast Queensland, Australia Units, selected based on a population of at least 60% of patients aged 65 years and older.
	P.I.E.C.E.S.	(Yous et al., 2020)	Qualitative interviews comparing professionals who had and had not received P.I.E.C.E.S. education	15 healthcare professionals including 10 nurses. Nine had received training, six had not.	Four acute medical settings (i.e. three clinical teaching units and a cardiology unit) located within an urban teaching hospital in Southern Ontario, Canada that houses approximately 130 acute medical beds.
	PROACTIVE	(Gilmore-Bykovskyi et al., 2021)	Pre-post design using ward staff survey (quantitative), open-ended feasibility and audit data from completion of intervention tools for patients.	Surveys with all nursing staff on ward (21 pre-intervention, 26 post-intervention). 40 patients involved in intervention but numbers included in audit not given.	A 20-bed general medicine inpatient unit in a Midwestern Veterans Affairs Hospital, US
	Team	(Russell et al., 2011) Conference abstract	Evaluation of About Me tool	43 members of staff and 13 carers	Specialist Medical and Mental Health Unit
		(Harwood et al., 2011) Study Protocol	Adapted randomised controlled trial with patients randomised to ward for care then approached for participation in trial.	N/A - protocol	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Goldberg, 2012 – PhD thesis)	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in trial. Structured non-participant observations using Dementia Care Mapping	90 patients (46 intervention, 44 standard care)	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Goldberg et al., 2013a)	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in	Intervention ward participants (n = 310), control ward participants (n = 290) compared on key health outcomes using measures and	Large acute general hospital within the East Midlands region of the United Kingdom.

(*continued on next page*)

Table 1 (*continued*)

Patient group	Intervention	Paper	Design	Sample	Setting
			trial. Interviews and data collected on key health measures from patient and/or carer at recruitment and 90 days (±7 days) post-admission. Structured non-participant observations using Dementia Care Mapping Carers' satisfaction with hospital care post-discharge (telephone structured interview) Audit: assessed process of care on random sample from case notes recording presence or absence of items including communication	interviews pre- and post- admission. 90 patients (46 intervention, 44 standard care) observed with Dementia Care Mapping Audit of 205 sets of case notes Telephone structured interview with 462 carers (234 intervention, 228 standard care)	
		(Goldberg et al., 2013b) Conference abstract	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in trial. Structured non-participant observations using Dementia Care Mapping	90 patients (46 intervention, 44 standard care)	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Spencer et al., 2013)	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in trial. Qualitative interviews with carers	40 carers (20 intervention, 20 standard care)	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Goldberg et al., 2014)	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in trial. Non-participant observations (detailed ethnographic fieldnotes taken alongside structured observations)	90 TEAM participants randomly subsampled by a Clinical Trials Unit for dementia care mapping (quant measure). Of these, 60 (30 per group) were randomly selected "to be qualitatively analysed for this study".	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Tanajewski et al., 2015)	Adapted randomised controlled trial with patients randomised to intervention or standard ward for care then approached for participation in trial. Economic evaluation using QALYs	599 participants (309 intervention, 290 standard care)	Large acute general hospital within the East Midlands region of the United Kingdom.
		(Gladman et al., 2015)	Full NIHR project report providing further methodological details and findings of Team project	See above	See above
People with learning disabilities	Learning Disability Liaison Nurse Service Ireland (LDLN Ireland)	(Ní Riain and Wickham, 2024)	Descriptive qualitative design using focus groups	Focus groups with three different disciplines/staff support levels who worked with the liaison nurse in a community intellectual disability organisation (6 management/ clinicians; 3 residential nursing staff; 6 residential social care staff).	Learning Disability Liaison Nurse service in Ireland
	Learning Disability Liaison Nurse Service Scotland (LDLN Scotland)	(Brown et al., 2010)	Commentary article, first peer reviewed publication of key findings, citing evaluation report		
		(Brown et al., 2012)	Mixed methods study including quantitative audit data (referrals) and qualitative interviews or focus groups with stakeholders. *Quantitative audit data excluded from analysis as nursing staff data could not be disaggregated.*	Audit data collected prospectively over 18 months (323 referrals). Qualitative sample: 85 people: adults with learning disabilities (n = 5), carers (n = 16), primary care staff (n = 39), general hospital staff from all disciplines (n = 19 including 13 nurses) and liaison nurses (n = 6).	Four Learning Disability Liaison Nurse Services in south-east Scotland
		(MacArthur et al., 2015)	Mixed methods study including quantitative audit data (referrals) and qualitative interviews or focus groups with stakeholders. *Quantitative audit*	Audit data collected prospectively over 18 months (323 referrals). Qualitative sample: 85 people: adults with learning disabilities (n = 5), carers (n = 16), primary care staff	Four Learning Disability Liaison Nurse Services in south-east Scotland

(*continued on next page*)

Table 1 (*continued*)

Patient group	Intervention	Paper	Design	Sample	Setting
			data excluded from analysis as nursing staff data could not be disaggregated.	(n = 39), general hospital staff from all disciplines (n = 19 including 13 nurses) and liaison nurses (n = 6).	
		(Brown et al., 2016)	Mixed methods study including quantitative audit data (referrals) and qualitative interviews or focus groups with stakeholders Secondary analysis of qualitative interviews or focus groups with stakeholders.	Qualitative sample in secondary analysis: subset of 18 people: adults with learning disabilities (n = 5), carers (n = 16).	Four Learning Disability Liaison Nurse Services in south-east Scotland
		(Brown, 2020)	Summary of Brown et al., 2016	Summary of Brown et al., 2016	Four Learning Disability Liaison Nurse Services in south-east Scotland
	Traffic Light Hospital Assessment	(Bell, 2012)	Qualitative combining semi-structured interviews, focus group and reflexive journal analysis.	People with learning disabilities from a local self-advocacy group (n = 8); Staff and carers (n = 12; not differentiated).	Learning Disability Liaison Service in Hospitals in Scotland NHS Trust
Stroke survivors with aphasia	Stroke Care Training	(Ross et al., 2009)	Service evaluation. Pre- and post-training questionnaires combining quantitative measures and open text comments Reflections in an open discussion and feedback session at the end of training. *Quantitative data excluded from analysis as hospital nursing staff data could not be disaggregated.*	Staff who participated in six courses (n = 107) aimed at all disciplines working in acute stroke care and rehabilitation (both in hospital and in the community) but particularly focused toward allied health staff, nurses, health-care assistants and therapy assistants (breakdown of sample not given).	A large NHS foundation trust teaching hospital in a socio-economically and ethnically diverse UK city with five hospital sites.
		(Read and Palmer, 2013)	A qualitative service evaluation using focus groups and interviews.	Convenience sample of 12 members of staff including 3 members of nursing staff who had attended the course over the previous six years.	A large NHS foundation trust teaching hospital in a socio-economically and ethnically diverse UK city with five hospital sites.

intermediate outcomes that meet the preconditions for potentially improving involvement in nursing care decisions. Column one shows impacts on potential communication adaptation and column two shows communication in practice. Column three shows direct measures of patient involvement in care decisions (see Supplementary file 5 for supporting data). Overall there was limited examination of patient involvement in decision making and few studies undertook statistical analyses of included measures.

3.4.1. Intermediate outcomes

3.4.1.1. Impact on potential communication adaptation. There was evidence of improved staff understanding of how someone might communicate and understand information, mostly from qualitative evidence. Grealish et al. (2021) found a significant change between pre- and post-training knowledge on the Communication and Behaviour subscale of the Dementia Assessment Scale in the intervention group. However this represented fairly low substantive score changes with relatively few staff members participating in both pre- and post- surveys.

Qualitative findings on the positive impact of specialist staff on potential communication improvements included the availability of accessible information (Ní Riain and Wickham, 2024) and increased staff confidence with understanding unfamiliar or challenging behaviour (Gladman et al., 2015).

The impact of some training on staff confidence and stress was unclear due to small numbers and Likert scale points biased toward higher confidence and greater stress and substantive score changes were small and not tested for statistical significance (Gilmore-Bykovskyi et al., 2021), Qualitative findings included greater staff confidence in advocating for patients based on increased understanding of communication difficulties and the meaning behind care resistance (Crandall et al., 2022).

There were positive but slightly limited findings relating to tools being perceived by staff and carers as good identifiers of needs (e.g. Bell, 2012, p. 61). This included positive descriptive statistical findings, but these lacked detail on how people were sampled, and represented very small numbers (Russell et al., 2011).

3.4.1.2. Impact on communication in practice. Self-reported qualitative findings from staff demonstrated some improved relationships and communication with patients, for example staff trying to explain everything they were doing (Read and Palmer, 2013) or reporting meaningful connection with patients (Cheong et al., 2021). There was also evidence of improved needs assessment and collaboration among interdisciplinary staff (Yous et al., 2020).

The use of forms to identify or record signs of pain or distress or to support communication were inconsistently or incorrectly completed, with no significant differences in use during- and post- training (Crowther et al., 2020) or use data showed a relatively low uptake on the intervention ward (Goldberg et al., 2013a). This was reflected in qualitative data where staff raised concerns about consistency of use of two different tools (Russell et al., 2011). However there was some qualitative evidence of one tool leading to escalation of care (Crowther et al., 2020). One project did not collect data on involvement in decision making or proportion of uptake and use of the intervention protocol meaning impact could not be assessed (Gilmore-Bykovskyi et al., 2021).

3.4.2. Impact on involvement in care decisions (including meeting identified needs)

Data exploring staff, patient and carer views of whether care met needs was mixed, with limited reports of some benefits alongside evidence of continuing poor care. Grealish et al. (2021) found no significant difference between staff ratings of a person-centredness scale across intervention and control wards pre- and post-intervention, with qualitative data suggesting limited understanding of the needs of patients living with dementia (Grealish et al., 2021). In another project staff reported having taken more person-centred approaches to 'responsive behaviours', but there was no additional verification from staff, carers or

Table 2
Elements of involvement in care decisions by intervention.

Contribution to involvement in care decisions	Intervention element	Description	Intervention by patient group										
			CAMIE	Distress Recognition Tool	Person-centred Care Package	Team	Gentle Persuasive Approaches online education	P.I.E.C.E.S.	PROACTIVE	LDLN Scotland	Traffic Light Hospital Assessment	LDLN Ireland	Stroke Care Training
Supports precondition of understanding needs & responses to care	Training that includes communication adaptations and assessing unmet needs	• Reframes 'responsive' or 'challenging' behaviour as a communication of unmet needs • Includes training in the use of communication techniques or of aids such as Talking Mats or tools to identify distress	✓	✓	✓	✓	✓	✓	✓	✓			✓
Supports understanding needs & responses to care	Tools to support identification of needs/ communication	• Patient profiles/passports/pain assessment forms that identified usual pain or distress responses, fear, or how the patient communicates • The use of forms to record signs of distress • Provision of communication tools (e.g. Talking Mats or bespoke communication aids)		✓	✓	✓			✓		✓		
	Personalisation or adaption of care	Changes to ward-level care approach or protocol that included person-centred planning, identifying unmet needs, communication or making adapted/accessible information for the patient.	✓	✓		✓			✓				
Supports adapting care delivery to meet identified needs	Needs-focused care delivery outside ward routines	Food and showers made available outside usual ward routines in response to patient requests/ identification of need	✓			✓							
Supports both understanding needs & responses to care & adapting care delivery to meet needs	Staffing changes	• Appointment of specialist staff who provide advice to ward/hospital staff on communication, consent, involvement in decisions, and create accessible information or bespoke communication tools, or adaptations to care delivery • Increasing staffing levels to (theoretically) allow more time to be spent with patients to identify their needs and personalise their care • Additional one-to-one care	✓			✓				✓		✓	

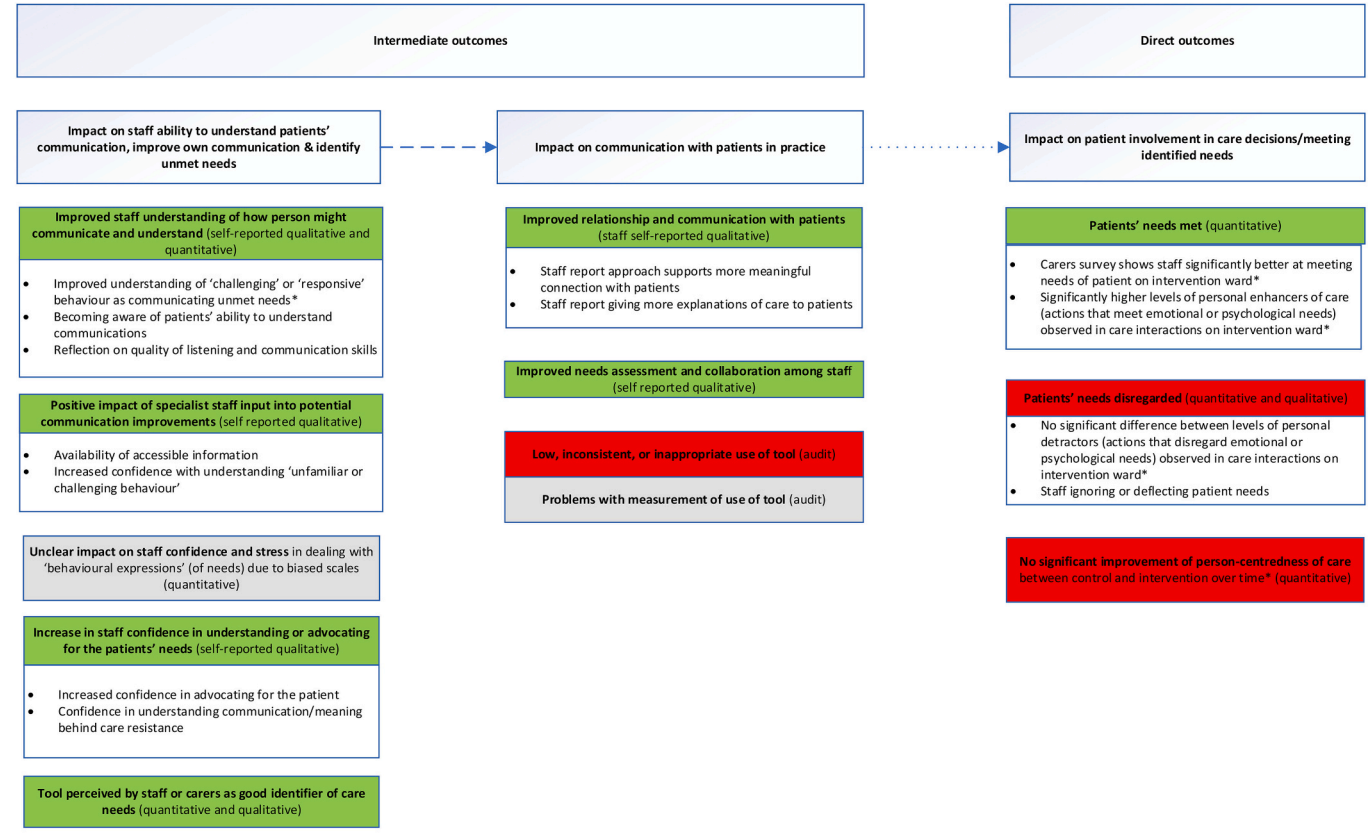


Fig. 2. Intermediate and direct outcomes related to involvement in care decisions. Outcomes are colour-coded with improvements in green, negative or non-significant differences in red and issues with measurement in grey. * = statistical test carried out. (For interpretation of the references to colour in this figure legend, the reader is referred to the web version of this article.)

patients (Crandall et al., 2022).

There was a lack of consistent improvement in meeting people's needs. Significantly more carers rated being very or mostly satisfied that the intervention ward met needs of patients (Goldberg et al., 2013a), although the ultimate difference was relatively small at 12%, with "neither setting… perceived as wholly good nor wholly bad" (Spencer et al., 2013, p. 1). However carers reported issues on the intervention ward suggesting either needs were not identified or were left unmet, such as uncleaned dentures and someone discharged "in her night gown, unwashed and smelling" (Spencer et al., 2013, p. 4). Patients reported staff "not communicating on […] health, discharge and patients' likes and dislikes" (Gladman et al., 2015, p. 22). Similarly while observations of patient care found significantly higher numbers of personal enhancers ("actions that meet emotional or psychological needs") on the intervention ward as compared to the control ward ($p < 0.001$), no significant difference was found between the numbers of personal detractors ("actions that disregard emotional or psychological needs") (Goldberg et al., 2013a, p. 4). Qualitative fieldnotes also highlighted the continuing deflection of patient needs to preserve ward routines (Goldberg et al., 2014).

3.5. Challenges and enablers to implementing interventions (Objective 2)

Fig. 3 illustrates the enablers and barriers for intervention implementation across three nesting elements: the acute care environment, organisational engagement and ward engagement. Papers describing four of the interventions highlighted how the acute care environment constrained staff efforts to increase patient involvement in care (Read and Palmer, 2013; Goldberg et al., 2014; Gladman et al., 2015; Yous et al., 2020; Grealish et al., 2021). This included how a focus on meeting governmental targets like reducing length of stay limited time available to engage with patients (Read and Palmer, 2013; Russell et al., 2015), and how long shifts negatively impacted on the quality and continuity of care (Harwood et al., 2010). One paper questioned whether the philosophy of acute care - with its focus on task completion and physical needs – might be inherently incompatible with philosophies of patient involvement, including a fundamental mismatch between patient needs and the unfamiliar environment of acute care (Goldberg et al., 2014). Care for people living with dementia on acute wards was conceptualised as 'custodial' (Grealish et al., 2021). The focus on urgency caused difficulties building relationships with staff (Harwood et al., 2010). Enablers included focusing on NHS policy fit (Harwood et al., 2010), adequate resources of time, staffing and continuity of staff, avoiding transferring patients out of wards with staff expertise, and perhaps limiting aspirations to minimising distress and damage caused by loss of familiarity and routine (Russell et al., 2015). Hospital policies designed to meet government targets on infection control, falls prevention and bed management conflicted with intervention approaches like allowing patients freer movement on wards (Harwood et al., 2010). Ward routines were a hindrance to personalising care and staff ability to respond to patient requests, although limited changes were successful, such as providing snacks and simple meals between routine ward meal deliveries (Russell et al., 2015).

A broad theme to emerge across the organisational and ward engagement elements was the importance of building relationships and involving a wide base of support from as early as possible from directors of relevant areas through to senior ward staff. Where ward managers supported the intervention and released staff to attend training or attend

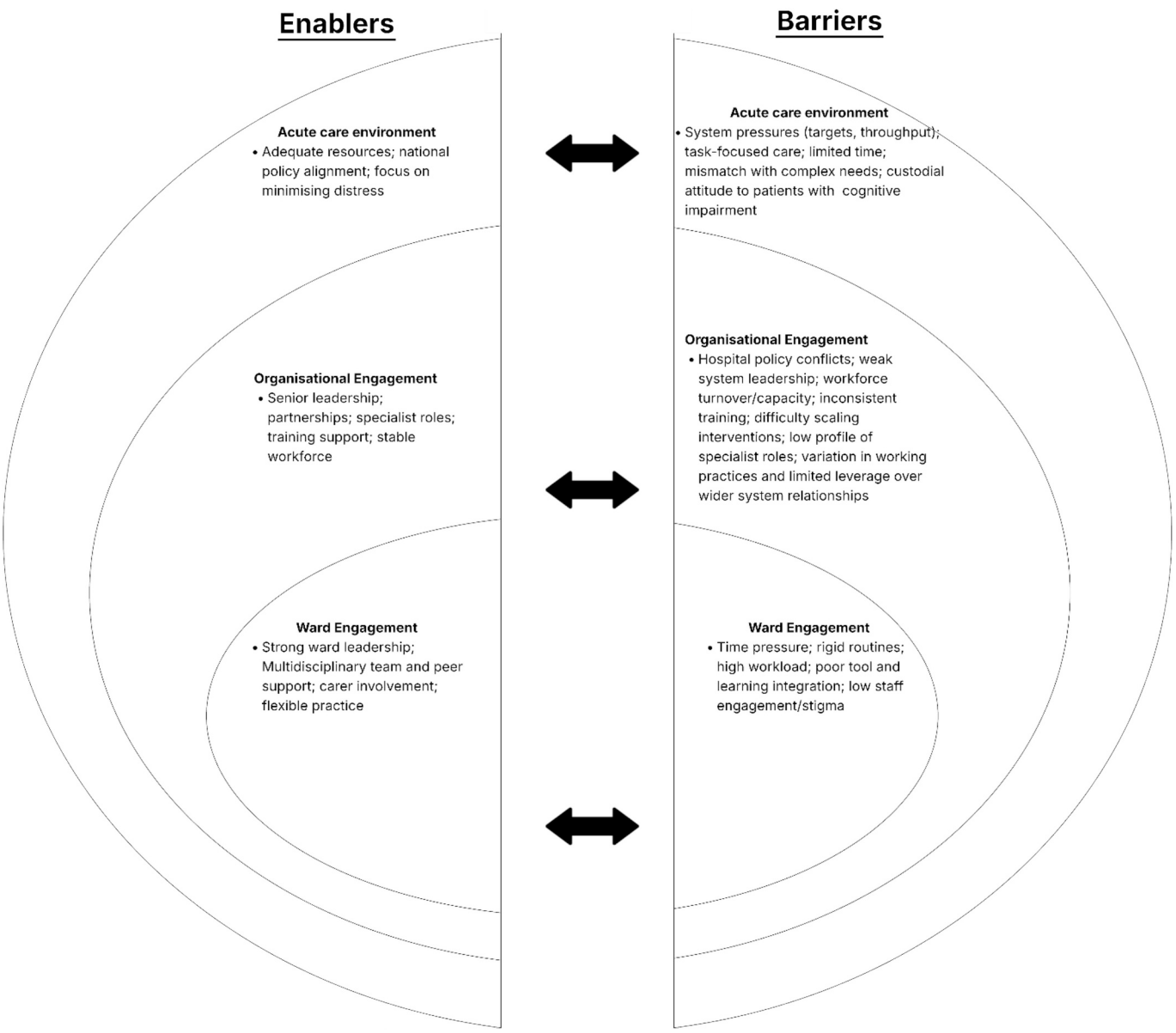


Fig. 3. Enablers and barriers to implementing interventions.

multidisciplinary meetings, or when senior staff role-modelled involvement approaches on the ward and challenged poor practice, this legitimised the more time intensive delivery of care. Mentoring other staff, with a critical mass of trained staff providing peer support was also important (Cheong et al., 2021). Conversely where there was no senior support and limited trained ward staff it was difficult to change practice in everyday care (Yous et al., 2020). Wards faced difficulties releasing enough staff to attend training (Harwood et al., 2010; Read and Palmer, 2013) and keeping up with the retraining required with high staff turnover (Gilmore-Bykovskyi et al., 2021) although some mitigated this through ward-level impromptu training (Brown et al., 2012; Crowther, 2017). At the organisational level, lack of staff engagement manifested in poor engagement with strategic changes, such a lack of integration into care pathways and wider hospital audit work (Macarthur et al., 2010), or low awareness of specialist staff (Brown et al., 2012).

When additional staff were recruited this could be lower than requested (Harwood et al., 2010) or staff could be difficult to recruit due to a lack of interest in working with (in this case) people living with dementia (Cheong et al., 2021). Using link nurses to work across wards was unsustainable due to high staff turnover and movement (Brown, 2020). Having limited additional staff meant limited coverage and capacity, particularly when employed across a hospital like Learning Disability Liaison Nurses (Brown et al., 2012). Enablers included having a stable ward team (Harwood et al., 2010), specialist staff having attributes that enabled them to negotiate and gain visibility, access to systems across community and acute settings (Macarthur et al., 2010) and roles spanning multiple organisations (Harwood et al., 2010). However newly recruited specialist staff could be drawn into reactive rather than strategic or planned work (Brown et al., 2012).

At ward level the introduction of involvement tools as new paperwork was difficult to establish (Crowther, 2017; Grealish et al., 2021) with use 'tapering off' over time (Yous et al., 2020, p. 32). Tools could be considered too complicated or time consuming, with stages skipped in implementation (Gilmore-Bykovskyi et al., 2021). Patients living with dementia were discriminated against or stigmatised by other patients and their relatives and staff (Harwood et al., 2010; Cheong et al., 2021; Grealish et al., 2021) and some inclusion tools required carer presence on the ward, which was variable (Crowther, 2017). Some staff resisted new care approaches, either lacking insight into how their current

practices could be more inclusive of patient need (Yous et al., 2020) or expecting specialist staff to carry out care instead (Macarthur et al., 2010).

4. Discussion

No studies fitted the inclusion criteria for people with traumatic brain injury or brain tumour or cancer and only one study involved acute care for stroke survivors with aphasia. This reflects limited literature exploring their nursing care in the acute setting (O'Donnell and Andrews, 2021) and the routine exclusion of people with aphasia from research (Lawrence and Kinn, 2012). It is possible some stroke survivors with aphasia were included in the Team study, where some participants also presented with hemiplegia, and a diagnosis of 'confused' rather than a formal dementia diagnosis was used, and this group may have also included older people who had sustained a traumatic brain injury. The NHS also includes people who sustained a head injury as a child in their definition of learning disability (NHS, 2025) so the learning disability projects may have also included some people with traumatic brain injury. There was a relative lack of studies exploring interventions to involve people with cognitive impairments in nursing care decisions in hospital settings, particularly in the larger dementia literature, reflecting a relatively recent systematic review that found no evidence of communication interventions in acute settings for people living with dementia (Machiels et al., 2017).

Involvement of relevant patient groups in the development and evaluation of the involvement elements of the projects was low. While it can be challenging to overcome the difficulties to include the views of people with cognitive impairments it is ethical to enable inclusion and these studies demonstrate how these challenges might be overcome.

Of the eleven interventions evaluated in these papers, the impact on patient involvement in care decisions practice was only assessed for five interventions. These papers found that improving staff knowledge and understanding of supporting the inclusion of people with cognitive impairments and introducing processes to support involvement did not result in consistent involvement of people with cognitive impairments in ward care decisions. Engagement throughout the organisation, with senior staff role modelling more time for care, is important and can (partially) mitigate the acute ward focus on tasks and physical care. However the persistence of exclusion from care decisions was not prevented.

There was also evidence of some stigma and discrimination toward people living with dementia, including by staff. It is important to acknowledge that interventions to improve inclusion occur within a wider social context, where people with cognitive impairments may be denied full personhood (Kitwood, 1997; Vorhaus, 2019), inappropriate do-not-resuscitate orders are used with people with learning disabilities (White et al., 2023; Heslop, 2021) and there is implicit rationing of care for patients living with dementia (Bail and Grealish, 2016).

The acute care environment was considered by some study authors as inherently hostile to efforts to increase involvement in care for people with cognitive impairments. This is consistent with other reviews (for instance, Gwernan-Jones et al., 2020) where personalised care for patients living with dementia was viewed as optimal with tasks and routines taking priority. This reflects wider concerns about inpatient care, where a scarcity mindset centring 'efficiency' leads to a focus on physical care and concerns that additional resources for one patient will detract from another (Shah and Launer, 2019, citing Frank, 2013). Overall our findings reflect how 'standardised approaches to care' within organisations disadvantage patients requiring additional support (Bridges et al., 2019, p. 785). Rushton et al. (2016) have argued that slow care (using sustained, skilled engagement, specialist skills and knowledge of the patient) is required for working with patients with dementia (and other patients with cognitive impairments), which is difficult to deliver in acute wards where fast care (meeting targets, reducing waiting times) is prioritised.

There were also tensions between hospital policy such as reducing falls risk and meeting expressed needs, which can result in routine restrictive practices such as keeping people in bed, increasing the risk of other adverse outcomes such as loss of mobility and continence (Northcott et al., 2026). Researchers have called for the use of approaches such as the 'slow streaming' of patients living with dementia and setting 'new normal' times that are appropriate to patients' needs (Rushton et al., 2016). However given the potentially increased risks of longer admissions when care is poor, this requires further research to understand the impact and safety implications, or how providing skilled one-to-one care (Northcott et al., 2026) may reduce risks of deconditioning and falls. Given the difficulties of providing high quality care in the acute care environment, it could also be useful for research to explore the potential role and safety implications of Hospital at Home or 'virtual wards' for patients identified as having cognitive impairments. In all cases however it is paramount that the best care in the most appropriate setting is provided at the right time.

Overall, the findings highlight that attempts at collaboration tend to be too narrow as they can be targeted at specific needs such as pain. Some interventions are linked to improvements in staff understanding and changes in practice, but this tends to isolate the problems of exclusion as individual staff problems rather than systemic barriers like targets that prioritise reduction of falls over the support of mobility, or the lack of support for more time-intensive communication. A care ethics analysis (Tronto, 1993, 2013) would suggest that system needs are prioritised over patient needs leading to sustained and extended marginalisation for these groups, for instance with a focus on completing tasks as quickly as possible.

Finally it is important to highlight the empty review findings for people who have cognitive impairments following traumatic brain injury or cancer and the need for more research to explore the needs of this group of patients and how they might be included in decision making in the acute hospital setting.

4.1. Limitations

Despite the use of a systematic review process, the comprehensive identification of relevant terms and use of multiple reviewers, some limitations remain. Firstly, the review only included studies published in the English language, or where key intervention details were available in English, which may have introduced bias into our findings. Secondly, dementia studies predominated, there was only one aphasia study, and there were no relevant studies identified about patients with cognitive impairments after traumatic brain injury or brain tumour or cancer, which may limit transferability to these patient groups. However, as we argue in the introduction, there is evidence of shared systemic difficulties with how hospital care is organised and experienced for people experiencing cognitive impairments across patient groups. Thirdly, while studies tried to be as inclusive as possible of patients who may not yet have a dementia diagnosis, it is possible that the inclusion of patients without a confirmed diagnosis (e.g. 'confused' patients) may have included patients who did not have dementia. Finally, the studies included are of variable quality, and under half of the interventions evaluated whether involvement in decision making increased for patients, instead focusing on assumed precursors, such as staff knowledge and understanding. This limits our ability to assess their actual impact on patient involvement in nursing care decisions in acute hospitals.

5. Conclusion

This was the first systematic review to evaluate interventions to involve people with cognitive impairments in nursing care decisions in hospital settings. Over half of the interventions did not measure patient involvement in decision making but instead focused on intermediate outcomes. Increases in staff understanding, confidence or knowledge in involving people identified as having cognitive impairments in nursing

care decisions in acute hospitals were functionally minimal and the impact on patient involvement in care decisions when measured was inconsistent or limited. Authors emphasised systemic issues of increasing patient involvement in decision making in the acute care environment, where efficiency, task focus and hospital policy provide barriers to making the necessary changes. This review also highlighted the paucity of studies exploring interventions to improve involvement in care decisions in general acute hospital care by people with aphasia and cognitive impairment following traumatic brain injury or a brain tumour or cancer, where further research is required.

CRediT authorship contribution statement

Joanna Hope: Writing – review & editing, Writing – original draft, Visualization, Project administration, Methodology, Investigation, Funding acquisition, Formal analysis, Data curation, Conceptualization. **Teresa Corbett:** Writing – review & editing, Validation, Methodology, Investigation, Funding acquisition, Formal analysis, Conceptualization. **Syd Anstee:** Writing – review & editing, Visualization, Investigation, Formal analysis, Data curation. **Cindy Brooks:** Writing – review & editing, Investigation, Formal analysis. **Tula Brannelly:** Writing – review & editing, Supervision, Methodology, Funding acquisition, Conceptualization. **Kay Townsend:** Writing – review & editing, Investigation. **Jackie Bridges:** Writing – review & editing, Supervision, Methodology, Investigation, Funding acquisition, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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Appendix A. Supplementary data

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