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Participatory development and implementation of a dementia care pathway with intervention bundles in acute care during the coronavirus pandemic: A process evaluation study

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Abstract

Aims: To explore the implementation of a dementia care pathway in an acute care setting.

Background: Dementia care in acute settings is often constrained by contextual factors. We developed an evidence-based care pathway with intervention bundles, and implemented it on two trauma units, with the aim to empower staff and improve quality care.

Design: Process evaluation using quantitative and qualitative methods.

Methods: Pre-implementation, unit staff completed a survey ($n=72$) assessing family and dementia care skills and level of evidence-based dementia care. Post-implementation, champions ($n=7$) completed the same survey, with additional questions on acceptability, appropriateness and feasibility, and participated in a focus group interview. Data were analysed using descriptive statistics and content analysis guided by the Consolidated Framework for Implementation Research (CFIR).

Reporting Guideline: Standards for Reporting Qualitative Research Checklist.

Results: Pre-implementation, staff's perceived skills in family and dementia care were moderate overall, with high skills in 'building relationships' and 'sustaining personhood'. Evidence-based interventions were delivered seldom to frequent, with 'individualized care' scoring lowest and 'assessing cognition' scoring highest. Implementation of the care pathway/intervention bundles was overshadowed by the pandemic, and failed due to major organisational- and process-related barriers. Acceptability scored highest and feasibility lowest, with concerns relating to complexity and compatibility of pathways/bundles when introduced into clinical routines.

Conclusions: Our study implies that organisational and process factors are the most influential determinants to the implementation of dementia care in acute settings. Future implementation efforts should draw on the evolving evidence within implementation science and dementia care research to ensure effective integration and improvement process.

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Relevance to Clinical Practice: Our study provides important learning around improving care for persons with dementia and their families in hospitals.

Patient or Public Contribution: A family caregiver was involved in the development of the education and training programme.

KEYWORDS

acute care, Alzheimer's disease, care bundles, care pathway, dementia, evidence-based care, family members, implementation, mild cognitive impairment, older persons

1 | INTRODUCTION

Older persons with Alzheimer's disease and related dementias (ADRD) or mild cognitive impairment (MCI) are often underserved when in need of acute inpatient care (Manietta et al., 2022; Naef et al., 2018). Hospitalisation poses significant challenges to their health and well-being, resulting in negative health outcomes such as higher risks for mortality, longer lengths of stay and more nursing home admissions compared to same-age persons without cognitive impairment (Fox et al., 2020). ADRD/MCI in older, acutely ill persons often remains unrecognised (Galvin, 2020). Research investigating the acute care experience of persons with ADRD/MCI shows rushed approaches to care as well as inadequate communication, unsuitable environment and restraint use (Reilly & Houghton, 2019). Family members describe feelings of burden and unmet needs as regards information sharing, individualised caring relationships with staff, involvement in care decisions and discharge management (Domingues et al., 2018). A meta-synthesis by Burgstaller et al. (2018) showed that these experiences cause 'cycles of negative feelings' in family members, adding emotional stress to an already burdensome situation.

Hospitals use highly specialised and interdisciplinary health care teams and technologies to address complex health issues. Nonetheless, staff may fail to recognise the importance of dementia-specific care, lack knowledge on best practices related to ADRD/MCI, have insufficient skills and therefore shy away from the challenges associated with communicating and interacting with persons with ADRD/MCI and their families (Featherstone et al., 2019; Kirchen Peters & Krupp, 2019; Scerri et al., 2020). Despite such a know-do gap in dementia-specific acute care, relatively little attention has been given to the implementation of evidence-based, person- and family-centred care to this vulnerable patient group beyond staff dementia education and training programmes, particularly within acute care settings (Karrer et al., 2020; Manietta et al., 2021; Sullivan et al., 2017). To improve the quality of in acute care provision to persons with ADRD/MCI and their families, we developed an evidence-based care pathway with intervention bundles based on prior work investigating current care experiences, practices and challenges within acute care (Ernst et al., 2020; Naef et al., 2018; Petry et al., 2019), and implemented it during the COVID-19 pandemic on two units of a health sciences centre. This study reports on the implementation process.

What does this paper contribute to the wider global clinical community?

- Insight to lessons learned from implementation failure.
- Understanding of main barriers and how to address them in the context of acute dementia care.
- Contribution to the theoretical understanding of complex implementation processes in acute dementia care.

2 | BACKGROUND

Knowledge products, such as care pathway or intervention bundles denote a way to implement evidence-based knowledge into clinical care (Flores et al., 2018; Rotter et al., 2012). Care pathways have been defined as 'instruments designed to map out the direction of clinical and administrative activities for all care professionals working with a diagnostic specific group' (Sullivan et al., 2017), while care bundles 'are a set of three to five evidence-informed practices performed collectively and reliably to improve the quality of care' (Kinsman et al., 2010). Overall, clinical pathways have been found to reduce hospital-related complications (Rotter et al., 2012), but the effectiveness of care bundles to reduce negative patient outcomes is less clear (Lavallée et al., 2017). Within dementia-specific acute care, there is insufficient evidence on the effectiveness and implementation of dementia care pathways and bundles (Sullivan et al., 2017). The implementation process of pathways and care bundles itself also remains challenging. A recent scoping review (Gilhooly et al., 2019) on care bundle implementation in acute care found a strong association between complexity of care bundles and fidelity, in that higher complexity and number of elements reduced fidelity. Fidelity was higher when implementation strategies were used. Education and training were often used across studies, with champions and multidisciplinary teams as further essential elements. A higher use of education and training strategies was also identified in a review assessing nursing guideline implementation, which was followed by local opinion leaders and audit and feedback (Spoon et al., 2020).

Markedly few studies have investigated the implementation of dementia-specific acute care (Karrer et al., 2020). Most often,

studies have evaluated the effect of education and training strategies, which have been found to be promising in improving staff attitudes (Schneider et al., 2020; Surr, Sass, et al., 2020). Other studies investigated the knowledge and skills of persons with a specific role in promoting dementia care, such as train-the-trainer (Heward, Board, Spriggs, Emerson, & Murphy, 2021) or champions (Travers et al., 2018). The ability of such implementation strategies to increase care and patient outcomes in acute care settings is less well understood. A recent scoping review that investigated determinants to implementation of nurse-led interventions in dementia care across settings (Karrer et al., 2020) identified barriers and facilitators in five domains: policy (e.g. financial resources), organisation (e.g. culture and leadership), intervention and implementation (e.g. characteristics of the intervention, quality of training and characteristics of supplying person), staff (e.g. knowledge, motivation, attitudes and team culture) and patient and family (e.g. nature and stage of dementia, family engagement). Only two of the included studies stem from acute care settings.

Given the many challenges to the implementation of new pathways and care bundles within environments such as acute care settings, and the complex interactions between implementation and care environments, a better understanding of implementation processes and contextual influencers is necessary. There remains a paucity of investigations into implementation of dementia-specific care interventions in acute settings. To increase quality of evidence-based care delivery to persons with ADRD/MCI and their families, we co-developed a care pathway with intervention bundles together with an implementation strategy and introduced it on two traumatology units in a large university hospital.

3 | METHODS

3.1 | Aims

The aim of this study was to explore the feasibility of implementing a care pathway with bundles and to identify contextual determinants to implementation and intervention. The research questions were as follows:

- How does nursing staff perceive their ability to deliver evidence-based care to persons with ADRD/MCI and their families?
- How does nursing staff experience the implementation and appraise the acceptability, appropriateness and feasibility of the care pathway with bundles?
- What are the facilitators and barriers to implementation/intervention?

3.2 | Design

We used a process evaluation approach to explore the ability to implement an evidence-based care pathway with care bundles, and to

TABLE 1 Study timeline overview.

Time phase	Activity/milestones
10/2019–12/2019	Study preparation, ethic submission
01/2020–02/2020	Literature review to update evidence base for intervention Kick-off on study units
03/2020–07/2020	Pandemic-related interruption of data collection and postponement of co-design workshops Preliminary intervention development
08/2020–10/2020	Co-design workshops Staff surveys
11/2020–03/2021	Pandemic-related delay of implementation activity Intervention development
04/2021	Decision for relaunch
05/2021–05/2021	Design of intervention material (pathway, bundles) Recruitment of implementation support person
06/2021–07/2021	Staff survey Set up of core implementation team Development of implementation plan
08/2021–12/2021	Active implementation phase Consultation leadership team traumatology Workshops with champions Workshops with staff nurses Developing an activity box
12/2021	Decision to terminate implementation due to pandemic
02/2022	Survey and focus group with core implementation team

identify contextual determinants to intervention delivery. The study started in late 2019 and lasted until the end of 2021. It was interrupted several times due to the coronavirus pandemic. Table 1 provides an overview of the project timeline and activities. We used the Standards for Reporting Qualitative Research Checklist (SRQR) to ensure complete and exact research reporting (O'Brien et al., 2014) (Data S1).

The pilot testing of the intervention's effect on patient/family outcomes and staff's proficiency for evidence-based, family-centred dementia care, using a controlled pre-post study, could not be carried out as planned due to the COVID-19 pandemic-related public health measures.

3.3 | Setting and participants

The study was conducted in the traumatology department of a major University Hospital in German-speaking Switzerland. Two

units with a total of 50 nursing staff with 40 full-time equivalent took part.

Participants were nursing and other staff working clinically on the units and having prior work experience with persons with ADRD/MCI. No other inclusion criteria were defined. Students were excluded.

3.4 | Intervention and implementation development

We used participatory action research (PAR) approach to co-develop an evidence-based, context-specific care pathway with care bundles, and to design an implementation strategy focused on staff empowerment (Baum et al., 2006). PAR is particularly suitable when the research aims to implement evidence-based interventions to improve the social situations of patients, families and staff in the specific, local contexts of health care (Bergold & Thomas, 2012). Participation occurred through a series of activities that involved key clinical partners, such as nurses, physicians and other health professionals, together with two family members with experience of acute care hospitalisation of a close other with ADRD/MCI, namely workshops and one-to-one consultation (Slattery et al., 2020).

In the current study setting, we had previously conducted a scoping review (Naef et al., 2018) to synthesise available evidence, and a mixed method study (Ernst et al., 2020; Petry et al., 2019) to investigate current care practices, challenges and needs from the perspective of persons with ADRD/MCI, family members and health professionals. Data integration and consultative workshops on these insights with clinicians revealed five components necessary for evidence-based, person- and family-centred acute care for this patient group. Among these five components, recognising and acting upon the needs of persons with ADRD/MCI (23.5%), family engagement (23.5%) and staff empowerment (29.4%) were rated as most important (others included 'continuity and coordination', and 'structure and resources') (Petry et al., 2018). For further refinement, we assigned these five components to either the intervention work package (i.e. the components 'recognising and acting upon the needs', 'family engagement', and 'continuity and coordination') or the implementation work package (i.e. 'staff empowerment', 'structures and resources').

3.4.1 | Intervention work package

We developed a preliminary draft of a care pathway and care bundles. We then carried out two workshops with clinical experts and family member representatives for co-design purposes. Participants included a family member, two social workers, two physical therapists, a geriatrician, two clinical nurse specialists, four staff nurses and a nurse educator. The aim of the first workshop was to review and refine the draft, define priorities and map bundles onto the emerging pathway. The second workshop focused on finalising the

refined pathway with care bundles, review graphical layout and fact sheets, and discuss implementation into the clinical documentation system.

The acute care dementia care pathway specified critical time points from admission to discharge including follow-up care. We grouped evidence-based interventions into four care bundles, namely (1) identifying persons with ADRD/MCI, assessing cognition and needs; (2) family engagement and support; (3) person-centred communication; and (4) dementia-specific care, including activity/self-care, addressing physical needs and managing challenging behaviours. For each care bundle, a fact sheet was provided, structured into aims, clinical indication, assessment and intervention processes and staff responsibility (Data S2).

3.4.2 | Implementation work package

To identify ways to empower staff and promote supportive structures and resources, we consulted with representatives from the units, with the aim to identify their training and implementation support needs. We conducted one of the two planned workshops, which included one family member, two staff nurses, one clinical nurse specialist, one social worker, one physical therapist and one geriatrician. We first brainstormed ideas about how to facilitate staff empowerment and knowledge of working with persons with ADRD/MCI and their family; second, discussed and delineated training modalities and methods; and third, defined resource persons and clarified responsibilities and further procedures. Workshop outputs were (1) a set of teaching and learning methods, such as short theoretical inputs, short-videos, team consulting, inter-professional meetings; (2) delivery modality, such as using existing education structures of the ward, short sessions and brief inputs during clinical handovers; and (3) required content in relation to knowledge and skills. The latter included: introduction into care pathway with bundles, pathology and care of ADRD/MCI, family care, cognitive assessments, management of behavioural issues, provision of structure and activities to persons with ADRD/MCI, open attitudes and communication skills. We then developed a corresponding education and training programme. For the workshops, we created a set of slides, patient vignettes with practical exercises and a pocket card with a summary of the bundles (see [supplementary file](#)).

3.5 | Actual implementation of care pathway with bundles

The pre-implementation phase, planned to take 9 months, was interrupted several times due to the pandemic, and stretched from March 2020 to July 2021. Following a lengthy interruption that necessitated a relaunch, a decision was made to employ the following implementation strategies in addition to the education and training programme: form a core implementation team, consisting of a smaller group of nursing staff to act as champions (Travers et al., 2018) and a project implementation support person (Albers et al., 2020), who was hired to facilitate

and support the education and training in close collaboration with the champions. The core implementation team consisted of two advanced practice nurses, two clinical experts and two staff nurses and one group leader, working on the units, the implementation support person and two researchers. An implementation plan was developed that sought to consider the ongoing coronavirus pandemic (Table 2).

The active implementation phase occurred from August 2021 to December 2021. Due to an increasing staff shortage on the unit and pandemic-related uncertainties management and research leaders decided to stop the implementation.

3.6 | Recruitment and data collection processes

Nurses were recruited to participate in the survey, using the electronic data capture system REDcap®, via team information and flyers/posters. Unit management sent out an invite and followed up with two reminders. Members of the core implementation team encouraged their peers to participate. In addition, the survey was sent out to health professionals who had participated in the workshops or who worked on the unit. The first round of data collection took place from August to October 2020 and was repeated in July to August 2021. Following implementation, members of the core implementation team were purposefully recruited to complete the survey and to participate in a focus group interview following the decision to terminate the implementation in February 2022.

To answer the first research question on staff proficiency in evidence-based family and dementia care, and to obtain their perception of the level of evidence-based, person-centred dementia care on their unit, the following instruments were administered:

1. *Family Nursing Practice Scale (FNPS)*: The 10-item German version of the FNPS was used to assess staffs' appraisal of

practise skills in working with families (<https://fnps.info>) (Naef et al., 2021). Items are scored on a 5-point Likert-type scale ranging from one (high level) to five (low level). Lower mean score represents higher practice skills. This German questionnaire was validated in-acute-critical care, suggesting high internal consistency (Cronbach's alpha of .84) (Naef et al., 2021).

2. *Sense of competence in dementia care staff (SCIDS) scale*: The 17-item SCIDS scale was used to assess staffs' confidence in caring for persons with ADRD/MCI (Scheppers et al., 2012). It consists of four subscales: 'Professionalism' (5 items), 'building relationships' (4 items), 'care challenges' (4 items) and 'sustaining personhood' (4 items). Items are rated on a 4-point-Likert scale ranging from agreeing not at all (1) to very much (4), with a high sum score indicating higher sense of confidence. Cronbach's α indicated a high internal consistency for the full scale ($\alpha=.91$), with subscales having satisfactory internal consistency ranging ($\alpha=.83-.70$) (Scheppers et al., 2012). Test-retest reliability for the total scale is high (ICC of .74). The English version of the SCIDS was translated with permission into German according to a standard protocol for the translation and cross-cultural adoption of outcome measures (Sousa & Rojjanasrirat, 2011). The German total scale showed high internal consistency (Cronbach's alpha of .86).
3. *Person-centred care of older people with cognitive impairment in acute care scale-revised (POPAC-R)*: The 14-item self-report German version measure POPAC-R was used to assess the extent to will to which health professionals perceive their care provision to be based on best available evidence and person-centred (Grealish et al., 2016; Nilsson et al., 2013). It assesses on a 6-point Likert scale ranging from one (never) to six (always) the level of evidence-person-centred care. The scale consists of three subscales, namely 'individualizing care' (5 items), 'using cognitive assessment and care interventions' (5 items) and 'using evidence and cognitive expertise in cognition' (4 items). A mean score is

TABLE 2 Implementation plan and activities.

Objective	Strategy	Barriers addressed	Who	How
Build capacity for implementation (create structure)	Champion role Implementation support person	Lack of capacity	Core team	Define role Hire implementation support Kick-off workshop core team
Champions are empowered to implement best practice and support their colleagues.	Education and training of champions Audit and feedback	Insufficient knowledge and skills	Implementation support person Champions	6-h training programme Weekly feedback meeting
Easy access for staff to best practice/evidence	Pocket guide Pathway with intervention activities	Insufficient access to knowledge/information	Core team	Making evidence-based material available
Professionals and teams are empowered to apply best practice in their daily practice	Short inputs clinical mentoring	Little time to attend training	Core team	Initial 30 min introduction, followed by weekly 10 min
Ensure accompaniment and ongoing adaptation (agility)	Implementation support person	Unforeseen structural and staffing changes	Implementation support person champions	Weekly presence
Teams are informed about project and its progress	Newsletter	High workload	Core team	Monthly

calculated for the total and each sub-scale, ranging from one to six (high degree of person-centeredness/evidence-based). The English version exhibits satisfactory internal consistency with a Cronbach's alpha of .87 for the total scale and of .74–.78 for the subscales (Nilsson et al., 2013). Internal consistency was found to be acceptable for the German version on the total score ($\alpha = .86$) and two of the subscales ($\alpha = .75$), but not for the 'individualizing care' ($\alpha = .67$) subscale (Ernst et al., 2020).

To answer questions on implementability, and to explore the implementation process, including facilitators and barriers (research question 2 and 3), we asked champions to assess the acceptability, appropriateness and feasibility of the care pathway with bundles, and conducted a focus group interview:

1. *Acceptability of intervention measure (AIM), intervention appropriateness measure (IAM), and feasibility of intervention measure (FIM):* The three 4-item AIM, IAM and FIM German-language measures (Kien et al., 2021; Weiner et al., 2017) were used. They ask on a 5-point Likert scale from one (completely disagree) to five (completely agree) whether the intervention (i.e. pathway/bundles) 'meets my approval' or 'is appealing to me' (AIM), 'seems fitting' or 'seems applicable' (IAM), 'seems implementable' or 'seems doable' (FIM). A mean score is calculated from each of the measures, whereby five indicates high acceptability, appropriateness and feasibility, respectively. They demonstrate high reliability with Cronbach's alpha's of above .93 (Kien et al., 2021).
2. *Focus group interview:* We held one focus group with seven members of the core implementation team. Focus groups are particularly useful for generating data regarding social processes, cultural norms and shared local practices, as they bring together persons in common situations (Jayasekara, 2012; Stephan, 2016). Two doctoral-prepared researchers (one nurse, one psychologist) not involved in the project moderated the focus group interviews, using a semi-structured interview guide. Questions included: 'How did you experience the implementation activities? What was helpful, what did not work well for you?'; 'What enabled, what limited the implementation/delivery?'; 'How confident do you feel about your ability to deliver the pathway with bundles following the education and training you received?'; and 'How appropriate and useful do you consider the pathway with bundle to address patient and families' needs?' The interview lasted 67 min. A brief demographic questionnaire was also obtained from the participants.

3.7 | Data analysis

Survey data was exported from REDCap and into SPSS (Version 26). After data cleaning, descriptive analysis was undertaken according to level of data. We analysed data separately for time point of data collection, and for different staff groups (i.e. nurses vs. other health professionals). Due to the small sample size and the risk of selection bias, no inferential statistics were calculated.

The focus group interview was professionally transcribed verbatim, checked for accuracy and anonymous files entered into NVivo Version 12, a qualitative data analysis software to support data management and analysis processes. First, to become familiar with the data, transcribed text was read and re-read by two researchers. Next, meaning units that is, phrases, sentences or paragraphs that hold meaning in relation to the research question were independently coded. An interpretive meeting was held to discuss emerging lines of inquiry, and first interpretive writing was undertaken. In a next step, the Consolidated Framework for Implementation Research (CFIR) (Damschroder et al., 2009), which is a determinant framework from implementation science suitable to understand contextual influences on implementation, was used as a guide for analysis. First, interpretive notes were ordered according to the five CFIR domains: intervention characteristics, outer setting, inner setting, characteristics of the individuals and process. Next, the CFIR coding manual and rating rules (<https://cfirguide.org/tools/tools-and-templates/>) were used to identify contextual enablers and barriers to implementation in the following way. Codes were reviewed and assigned to the 39 CFIR constructs. Then, the CFIR rating rules were applied to describe the direction (enabling = +, limiting = -, mixed = x, neutral = 0) and strength (weak = 1, strong = 2) of influence on implementation and delivery. Lastly, interpretive notes were refined, and thematic findings finalised. Finally, participant quotes were translated from German to English and brought in a proper grammatical form.

3.8 | Ethics statement

The study was approved by the Ethic Committee of the Canton of Zurich (Req 2019-01933). All participants were informed orally and in writing with a study information sheet about the purpose and content of the study. For the quantitative survey, submission of the online questionnaire was taken as informed consent. Focus group participants signed a written informed consent form. For participation in the co-production and implementation activities, champions consented orally. In an introductory workshop, we explained the project and its procedures, their role as champions, our expectations and the required time resources.

4 | FINDINGS

4.1 | Participants

Before the implementation, a total of 72 health professionals completed the online survey, of which 60% were nurses. After the implementation, only nurses participating in the focus group interviews completed the questionnaire ($n = 7$). As shown in Table 3, most respondents were female (88.9%), had a mean age of 33.72 (SD 10.20) years and had worked about 6 years on average at the current hospital. More than one third (37.5%) indicated having previous training in the management of dementia/cognitive impairment

and family-centred care. Those nurses participating in the post-implementation data collection were older with more work experience, also when compared to the subsample of nurses completing a questionnaire before implementation (see Table 3). A higher proportion had a degree.

4.2 | Findings on capacity for evidence-based care

At the outset of the project, before implementation, health professionals' perceived ability to work with families as measured with the

FNPS was moderate (Table 3). Staff were found to report a moderate to high sense of competence in dementia care (SCID). Respondents scored themselves most highly on 'sustaining personhood' and 'building relationship'. The POPAC-R scale revealed a moderate to high degree regarding the extent to which health professionals reported their care to be person-centred and based on best available evidence. The use of cognitive assessments and care interventions scored highest. Post implementation respondents ($n=7$) rated their skills and competencies, as well as the level of person-centred, evidence-based care to be lower than those nurses before implementation.

TABLE 3 Participant characteristics and perception competencies and evidence-based care delivery.

	Pre Total sample $n=72$	Pre Nurses only $n=43$	Post Nurses only $n=7$
Demographics			
Age, mean (\pm SD)	33.72 (\pm 10.20)	34.46 (\pm 11.77)	42.86 (\pm 14.88)
Female, n (%)	64 (88.9)	32 (91.4)	6 (85.7)
Health professionals, n (%)			
Registered nurses	43 (59.7)	43 (100)	7 (100)
Nurse assistant	5 (7.0)		
Allied health professionals n (%)	24 (33.3)		
Highest degree n (%)			
Practical certificate	5 (6.9)		
Diploma	26 (36.1)	26 (60.5)	4 (57.2)
Bachelor's degree	34 (47.2)	15 (34.9)	
Master's degree	6 (8.3)	1 (2.3)	3 (42.9)
Doctoral degree	1 (1.4)	1 (2.3)	
Years of work experience total, Mdn (IQR)	8.00 (10.75)	10.00 (13.00)	12.00 (30.00)
Years of work experience current hospital, Mdn (IQR)	6.00 (9.00)	6.00 (11.00)	10.00 (31.00)
Family care competencies			
Previous education in family care, n (%)	27 (37.5)	24 (55.8)	4 (57.1)
FNPS total (inverse 1–5), mean (\pm SD)	2.49 (\pm .63)	2.35 (\pm .59)	2.53 (\pm .57)
Dementia care competencies			
Previous care experience in dementia/MCI, n (%)	69 (95.8)	42 (97.7)	6 (85.7)
Previous education in dementia/MCI, n (%)	27 (37.5)	15 (34.9)	2 (28.6)
SCIDS total (17–68), mean (\pm SD)	48.70 (\pm 6.60)	49.61 (\pm 7.36)	42.71 (\pm 7.80)
SCIDS building relationship (4–12), mean (\pm SD)	11.08 (\pm 2.03)	11.40 (\pm 2.29)	9.71 (\pm 2.75)
SCIDS sustaining personhood (4–12), mean (\pm SD)	11.81 (\pm 1.61)	11.77 (\pm 1.54)	10.43 (\pm 1.81)
SCIDS professionalism (5–20), mean (\pm SD)	15.51 (\pm 2.20)	15.89 (\pm 2.35)	13.57 (\pm 2.15)
SCIDS care challenges (4–12), mean (\pm SD)	10.30 (\pm 2.31)	10.66 (\pm 2.31)	9.00 (\pm 2.24)
Perceptions of evidence-based dementia care			
POPAC total (1–6), mean (\pm SD)	4.01 (\pm .61)	4.00 (\pm .56)	3.78 (\pm .50)
POPAC individualising care (1–6), mean (\pm SD)	3.81 (\pm .68)	3.65 (\pm .63)	3.28 (\pm .55)
POPAC using cognitive assessments and care interventions (1–6), mean (\pm SD)	4.18 (\pm .91)	4.35 (\pm .72)	4.17 (\pm .56)
POPAC using evidence and expertise in cognition (1–6), mean (\pm SD)	4.04 (\pm .69)	4.00 (\pm .64)	3.89 (\pm .63)

Abbreviations: FNPS, Family Nursing Practice Scale; IQR, interquartile range; Mdn, median; POPAC, person-centred care of older people with cognitive impairment in acute care scale-revised; SCIDS, sense of competence in dementia care staff.

4.3 | Findings on implementation

Nurses rated the acceptability of the care pathway with bundles to be rather high (AIM: median=4.00, IQR=1.00) (Figure 1). Appropriateness was more mixed (IAM: median=3.25, IQR=.75), with a bimodal distribution, some appraising the appropriateness to be low ($n=4$ out of 7), whereas others considered it higher ($n=2$ out of 7). In contrast, feasibility was considered rather low (FIM: median=2.75, IQR=1.75), with a high variance.

Focus group data revealed a similar picture, with a general acceptance and perception of the care pathway with bundles as useful to ensure evidence-based, quality care to persons with ADRD/MCI and their families. A lack of adaptability and low perception of feasibility were also expressed in the focus group. Nurses expressed keen interest in the evidence-based, person- and family-centred care approach. However, they felt insufficiently enabled for evidence-based care provision, and for their champion role, and would have liked better access to knowledge and training opportunities. Coupled with low readiness, lack of resources and insufficient engagement or buy-in of staff in the context of a global pandemic meant that the implementation needed to be stopped. Organisation- and related constraints together with implementation process-related challenges and issues related to the complexity of the pathway with care bundles, arose as the main barriers. Influencers pertained to 10 CFIR constructs within four domains (Table 4), which are subsequently described in detail (Figure 2).

4.3.1 | Innovation characteristics

This CFIR innovation characteristics domain captures the key attributes of the intervention that influence implementation. Overall, the pathway with bundles were perceived to be a facilitator to implementation, with some need for reducing complexity and improving the packaging of the evidence-based interventions. Statements in

the focus group pertained to three of the eight constructs, namely relative advantage, complexity of the pathway/bundles and the design quality and packaging.

Relative advantage

Participants appreciated the pathway/care bundles as a helpful tool that focuses their practices and better enables them to work with the target group. One participant said: 'It is certainly good that those who have attended the workshops have become more sensitive to the topic. They are more aware.' Champions were convinced that full implementation would have benefitted patients and families. 'I think in principle our patients would benefit (from the care bundles) because we can work more focused. (...) We already do a lot. But I don't think we bundle it. And I think that's where we lose resources that we have. If you can make it a bit more specific or standardized, that's certainly an added value for patients and staff.'

Complexity

Participants were doubtful about the ability to implement the care bundles. They felt them to be too vague in terms of responsibility, as one participant said: 'The bundles were already designed. But what do you have to do with it? It had not been specified: What are the steps, what do I have to do now? What do I have to do with these patients? What is my responsibility, what are my tools?'

Design quality and packaging

Overall, the material, such as graphical layout, pocket card and standardised documentation tool in the clinical record were considered helpful, but too complex: 'I found the pathway quite good. But I think that the pocket card was more tailored to us champions, because we already had the background knowledge. For the everyday use on the ward it needs something much, much, much simpler, like a flowchart'. Champions would have preferred a translation of assessment and intervention processes into concrete steps and tasks that could be ticked off in a checklist-like manner: 'If there was some checklist that you could tick off, would be luxury of course.'

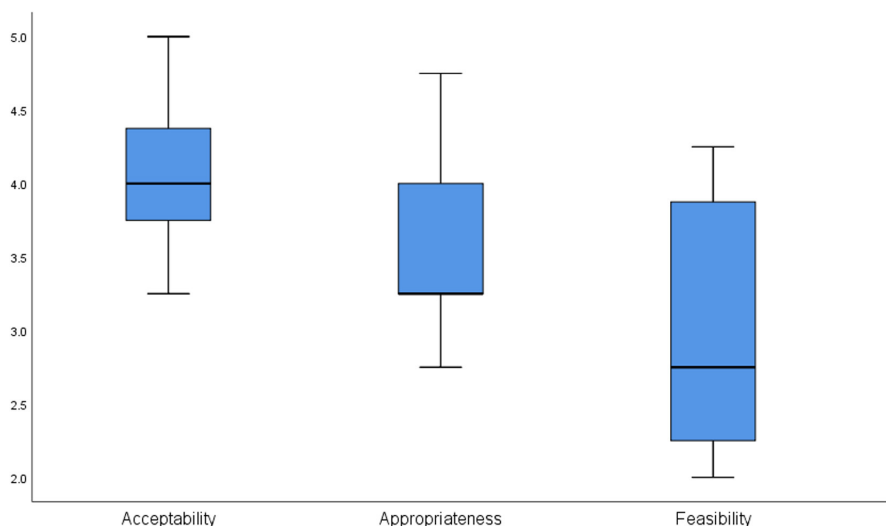


FIGURE 1 Implementation outcomes. Scale range of 1–5 (high). [Colour figure can be viewed at wileyonlinelibrary.com]

4.3.2 | Inner setting

This CFIR domain captures contextual influences situated within the organisation. Lack of compatibility of the pathway/bundles to existing routines and workflow, together with insufficient readiness for implementation, particularly in relation to available time resources and access to knowledge for the entire team, hindered the implementation to a significant extent.

Compatibility (climate)

Overall, participants perceived the pathway and intervention bundles to be appropriate and fitting to their clinical context. When asked if the bundle fits in their clinical setting, to the patients, one participant answered: 'I think with time and training, yes'. In addition, some intervention bundles were appraised to be less compatibly with workload (i.e. family engagement): 'You simply don't have the time to maybe have the conversation in peace with a relative when the bell rings next door.'

The readiness for implementation was very low given the ongoing pandemic. One champion illustrated this: 'The project was simply a victim of the entire situation. On the one hand, we couldn't do the survey because of Corona. We could do the workshops for the development of these bundles in a Corona break. When we wanted to implement them at the end of last year, Corona came again as well as staff shortages. So one has had too little capacity or energy to get involved.' Leadership commitment and willingness to support was high, but the units experienced high staff turnover after having served as corona units.

Lack of resources was the main reason for low readiness. Teams and champions did not have sufficient time capacities for implementation activities, as one participant said: 'We actually wanted to implement (the pathway/bundles) at the end of last year. Then Corona came back, with a lot of the staff leaving, so we had too little capacity and energy, besides the daily routines, to engage in implementation'.

Access to knowledge and information

Champions would have appreciated increased access to knowledge and information. There was a strong need to learn theory as well as to develop skills, as one participant stressed: 'For example, there was actually a whole workshop on family conversation. I found that very, very exciting. I also had it in school and I was actually quite well positioned there. Nevertheless, I had to read it over again for myself at home... so I had the feeling: ok, that is now enough information for me to carry it out in everyday life'.

4.3.3 | Characteristics of individual

Within this CFIR domain, statements regarding individual attitudes, perceptions and actions are captured individuals' openness and motivation played supported the implementation process. As champions felt they were still occupied with improving their own skill, they felt insufficiently prepared for their role as champions, which included peer coaching and clinical leadership for the care of persons

with ADRD/MCI. Data pertained mainly to champions' perception of skill and self-efficacy for delivering the intervention and supporting their peers to do so.

Self-efficacy

Participants felt overwhelmed by the expectation to train their peers, as they were very busy developing their own skills for implementing the pathway/bundles in their own practice. One champion explained: 'I've been to all the training sessions. But I have to say quite honestly, when it started on the ward, I was also very, very insecure what and how, although I actually knew all the tools, I did not have the feeling that I could pass it on SO that it is understandable to the team, because I had much more background knowledge than the team itself. And I didn't know how I was supposed to convey all the things I had learned in these workshops to them in ten minutes'. Nonetheless, they could see how they made progress and were able to build up capacity. 'I've personally learned communication for sure and a little bit about stimulation. Or things where I have become even more attentive or deal differently with patients. I have also benefited from that.'

4.3.4 | Implementation process

Focus group data pertaining to the implementation process fitted either into engaging or executing CFIR constructs, whereby most statements concerned the manner in which different stakeholder groups were engaged or failed to be engaged. Lack of planning, early or insufficient engagement and density of implementation activities were main barriers to implementation.

Pandemic-related interruptions and staff fluctuations, both in the clinical leadership and the project team, meant that engagement with nurses and other staff did not gain traction. Champions made many statements regarding lack of timely or sufficient engagement of colleagues, as one participant stressed: 'Because of time reasons, because of stress (pandemic) unfortunately not much came about. Even if we had dates (...). The work plan was already fixed, and then you may have had time off and eh, if you work 100% you do not like extra engagements on your single day off. Or there was a change to the work schedule, there were just a lot of absences and all that.'

First, interruptions and delays in the planning process meant that some champions on boarded a short time before the active implementation phase: 'I was also completely new to the topic. So I would have had to train myself, somehow get into the subject and at the same time already implement and provide support.' Some participants thought they did not have enough information about the whole project nor about what was expected of them in terms of role responsibility and time commitments. 'Well, I myself liked the project very much. When I was asked: Could you please participate in the project? I thought to myself: ok, (name of project), ok, googled it, didn't find anything (...) Colleagues didn't know anything about it. I wanted to inform myself first, to know: Ok, what do I do with it. What is that? And I didn't really find out anything. I didn't like that. I would...wanted to prepare myself a little bit if I was getting involved.' However, they appreciated

TABLE 4 Enablers and barriers to implementation. [Colour table can be viewed at wileyonlinelibrary.com]

CFIR domain/construct ^a	Rating ^b	Description
INNOVATION	+1	The pathway/bundles were perceived to be rather a facilitator, although some felt they were too complex to be used in practice
Relative advantage Stakeholders' perception of the advantage of implementing the innovation versus an alternative solution	+1	Participants saw many positive sides to the pathway/bundles and appreciated them as a helpful tool that focuses their practices and better enables them to work with the target group. They valued reminders and materials provided to them
Complexity Perceived difficulty of the innovation, reflected by duration, scope, radicalness, disruptiveness, centrality, and intricacy, and number of steps required to implement	-1	The pathway/bundles remained somewhat vague for participants in terms of processes, deliverers, and evidence underlying it
Design quality/packaging Perceived excellence in how the innovation is bundled, presented, and assembled	×1	Material provided to them was perceived as helpful but too complex, requiring simplifying to the level of steps and tasks
INNER SETTING	-2	Compatibility and low readiness due to the pandemic, which dramatically reduced available resources, coupled with insufficient access to training, were main barriers and resulted in the need to stop the implementation
Compatibility (climate) The degree of tangible fit between meaning and values attached to the innovation by involved individuals (...), and how the innovation fits with existing workflows and systems	×1	Overall, participants perceived the pathway/bundles as appropriate and fitting, but there were questions about feasibility given the many competing initiatives on the unit and in relation to particular bundles (i.e. family engagement). Quantitative data showed that perceptions of feasibility were moderate to low
Readiness general Tangible and immediate indicators of organisational commitment to its decision to implement an innovation	-2	The readiness was very low given the pandemic situation. Implementation was postponed several times. Leadership support was high, but the units experienced high turnover and staff shortages after having served as corona units
Available resources The level of resources organisation dedicated for implementation and on-going operations including physical space and time	-2	The lack of time was a main barrier, participants felt they did not have sufficient time for learning and applying the pathway/bundles
Access knowledge and information Ease of access to digestible information and knowledge about the innovation and how to incorporate it into work tasks	-2	Opportunities for learning in workshops or in interaction with the implementation support person were appreciated, but considered too few. There was a strong need to learn theory and to develop skills
INDIVIDUAL	+1	Perceptions of the pathway/bundles were generally positive, and there was an openness to change and use the innovation. Self-efficacy in relation to their champions' role was rather low
Self-efficacy Individual belief in their own capabilities to execute courses of action to achieve implementation goals	×1	Participants felt overwhelmed by the expectation to train their peers, as they were busy developing their own skills for implementing the pathway/bundles. However, they could see how they made progress and were able to build up capacity. Quantitative ratings showed that champions rated their competence in working with families (FNPS) and caring for persons with dementia (SCIDS) as lower than a sample of nurses who worked on the same units and who had completed the questionnaires a year prior
PROCESS	-2	Pandemic-related postponements meant that engagement with stakeholders did not gain traction, as it was repeatedly interrupted, paused and involved new staff. Short-term changes in the planning of the learning and training opportunities to accommodate time limitations meant that the key stakeholders were not on board, and implementation dose was too low. This observation resulted in the stop of the implementation process
Engaging Attracting and involving appropriate individuals in the implementation and use of the innovation...	-2	Some champions were on-boarded late, which meant that level of knowledge about the project was very heterogeneous. Pandemic-related postponements meant that engagement with stakeholders did not gain traction

TABLE 4 (Continued)

CFIR domain/construct ^a	Rating ^b	Description
Formal leader Individuals from within the organisation who have been formally appointed with responsibility for implementing an innovation...	×2	The role of the implementation support person was highly appreciated and considered necessary. Due to health issues, the implementation support person was not as available as planned
Champions Individuals who dedicate themselves to supporting, marketing and 'driving through' an implementation	-2	Participants agreeing to act as champions did not feel well prepared. Late on-boarding made it difficult for them to gain a timely understanding of expectations and requirements
External Individuals who are affiliated with an outside entity who formally influence or facilitate innovation decisions in a desirable direction	+1	Collaboration between the research team and the core implementation team was experienced as helpful
Key stakeholders Individuals from within the organisation that are directly impacted by the innovation...	-2	The implementation dose was reduced from entire teams to champions to accommodate time constraints. This meant that nursing staff was not sufficiently engaged. The lack of physician buy-in and willingness to be engaged also limited the implementation
Executing Carrying out or accomplishing the implementation according to plan	-2	Implementation activities were experienced to be too dense. Participants would have preferred a stepped approach, with theoretical input and skill training for one bundle completed before moving to the next one

Abbreviation: CFIR, Consolidated Framework for Implementation Research.

^aCFIR, definitions taken from <https://cfirguide.org/>.

^bCFIR rating tool. Valence or direction of influence: + = positive influence (facilitator), - = negative influence (barrier), × = both directions, that is, mixed comments resulting in positive/negative influence, 0 = neutral. Strength of influence: 1 = weak influence, 2 = strong influence on implementation.

the opportunity to contribute ideas and suggestions. They experienced it as supportive to the implementation that their contributions were taken up. *'I remember that I sat together with (researcher). Where it was about what is the idea, what worked and what do we consider as realistic in clinical practice. We gave inputs about what could perhaps make it easier for us, for example a quick link into the clinical information system. So we discussed how it is feasible. And I think that was helpful to become familiar with the project and that we were involved. We made suggestions based on your experience and she took notes and applied it immediately'*.

Champions would have preferred that the inter-professional team would have been trained: *'Well, you would certainly have to consider it if you were to take it up again, that physicians are on board, long term. That they participate in all the workshops. I had the impression that it makes a difference if you participated from the beginning and have dealt with the topic for a long time or if you came to it briefly and selectively. (...) That it made a difference.'* The lack of inter-professional buy-in, particularly from physician, was a main barrier for successful implementation. *'I simply asked myself how we could implement the intervention get a 'neuro/geriatrician consultation' if they do not have any background knowledge. And then I asked myself, if we know that the doctors are not on board, do we make the programme purely nursing? THAT is something I wondered a bit, how that would have worked'*.

In contrast, the implementation support person, who also held clinical skills in dementia care, was experienced as supportive and knowledgeable. The premature and unexpected leave had a detrimental effect on the implementation process. *'The icing on the cake was that (name of implementation support person) would support us on*

site in the care of the first patients, and instructs us step by step in practice. Then she left and was no longer available. That led us wondering who would do it and who has the capacity for it, who knows enough about the project. So the training of the team was actually missing'.

Executing

Champions considered the time between the education and training and the actual implementation of the care pathway and bundles as too short, which created additional pressure in a context of an already high-pressured work situation. *'So for me it was all too close together. I had the feeling that it was too crowded. How should one - besides what else has been going on in the ward - do that? I just had the feeling that it is not possible at all, also in calmer times I would have seen difficulties there with such a crowded (implementation) plan'*. In addition, the lack of influence on the dates/times of the workshops resulted in poor attendance. Participants would also have appreciated a 'step-wise' implementation process, with first learning about each bundle, followed by a period of applied learning/training before moving to the next 'bundle', as one participant illustrated. *'I could imagine that if we were to do it again, the focus would have to be on the training with more time and less content. The other important thing would be practicing together. I could really imagine that one says: 'We do now ONLY the assessment practice for a month'. And then after the shift handover or twice a week after shift handover, we look which patients are eligible, how do we recognise them and what do we have to do now. When one bundle is consolidated, then comes the next one.'* In contrast, they appreciated individual sessions of education and training in case they were unable to attend the workshops.

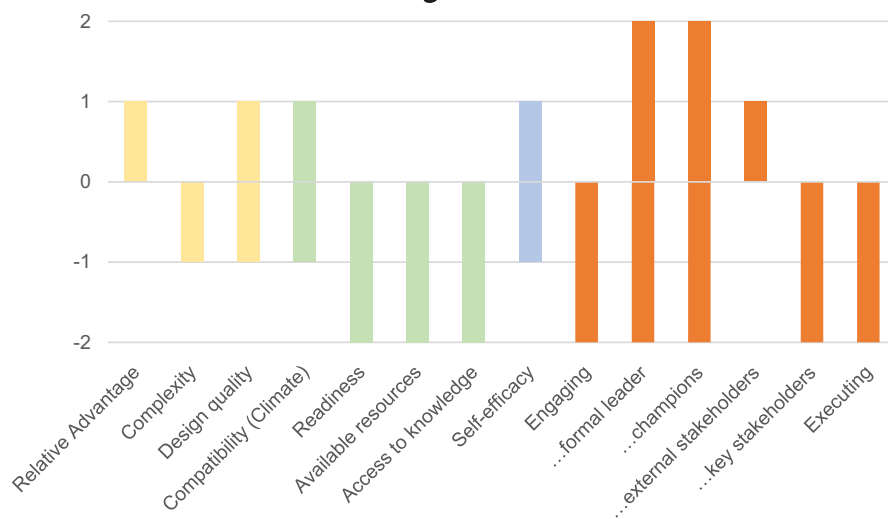


FIGURE 2 Level of influence of contextual determinants (CFIR constructs). Colours pertain to constructs of the Consolidated Framework for Implementation Research (CFIR): yellow, outer setting; green, inner setting; blue, characteristics of the individual; orange, process. Valence or direction of influence: + = positive influence (facilitator), - = negative influence (barrier), both directions = mixed comments resulting in positive/negative influence. Strength of influence: 1 = weak influence, 2 = strong influence on implementation. [Colour figure can be viewed at [wileyonlinelibrary.com](https://onlinelibrary.wiley.com/doi/10.1111/jcun.12923)]

5 | DISCUSSION

Using qualitative and quantitative data, we assessed acute care staff's perceptions of their ability to deliver evidence-based care to persons with ADRD/MCI and their families, and explored the implementation of a care pathway in two trauma units during the global coronavirus pandemic, including enablers and facilitators of implementation. The introduction of the care pathway and bundles, initiated to improve evidence-based, person- and family-centred care to persons with ADRD/MCI, using a combination of different activities (including education and training, stakeholder engagement, clinical support) was not successful. Our findings suggest that nurses' skills, knowledge and self-confidence, at least in relation to person-centred dementia care, were well developed before the implementation, even though were difficult to actualise in practice.

In investigating the implementation of the pathway and bundles, we identified more barriers than facilitators. The main barriers pertained to the intervention (i.e. complexity and design packaging), the organisational context (i.e. low readiness and lack of time and staff resources) and the implementation process itself (i.e. fractured engagement, personnel turnover, commitment) as well as the individual nurse (i.e. lack of self-efficacy as a champion). Our findings are similar to a scoping review on factors that facilitate or hinder implementation of dementia care across settings (Karrer et al., 2020). It identified factors relating to the organisation, the intervention and implementation and to staff as key influences. Two recent studies using the CFIR as a theoretical framework, conducted in a long-term care and a primary care setting, also reported similar findings. Shortage of staff and insufficient time for involvement in implementation activities, together with insufficient engagement and participation (Coffey et al., 2021), non-readiness within the organisation, as well as a misfit between the organisation and the intervention (Seidel et al., 2022) were identified as main barriers to adoption or reasons for implementation failure.

Champions rated acceptability of the care pathway with bundles high in our study, which shows that they saw value and a fit of the intervention to their current care provision. However, there were

questions around appropriateness for the acute care setting, and feasibility was rated quite low. The pathway with bundles was considered complex, requiring a simplified design and easy-to-use tools. Research on pathway and guideline implementation have shown that increasing levels of complexity or components hinders adoption (Gervasi et al., 2020; Gilhooly et al., 2019; Karrer et al., 2020). This finding seems surprising since we used co-design strategies to co-produce user-friendly materials and to ensure acceptability and feasibility of the dementia care pathway. We think that the fact that some champions were involved in the co-production process rather late led to a limited understanding of their role and associated responsibilities. In addition, they raised questions about the fit of the bundle with the workload and pace in trauma care.

On the organisational level, low readiness due to the lack of resources, workforce issues and lack of time strongly impacted the care pathway/bundle implementation, as consistently reported in other studies (Coffey et al., 2021; Godfrey et al., 2018; Karrer et al., 2020; Surr, Parveen, et al., 2020). For example, a UK report found that only two out of 10 hospital wards fully implemented person-centred dementia care, with the main barriers at the unit and organisational levels (Godfrey et al., 2018). An investigation into dementia training programmes also revealed that lack of time, staff, financial and material resources, as well as competing demands were key barriers. Consequently, the availability of sufficient resources and capacities, together with organisational readiness for implementation emerge as key areas that need to be targeted through tailored implementation to increase the likelihood of improvement in dementia care within acute settings.

The actual preparation and undertaking of the implementation failed to sufficiently engage all relevant nurses and other health professionals and to perform the implementation activities according to plan and needs. The pandemic circumstances posed particular challenges because it caused interruptions and final termination of the implementation process. For example the participating units became specialised units for patients with COVID-19 infections. High staff fluctuations, both within the clinical teams, the champions, as well as the research team, resulted in fractured engagement and

diminishing support from the stakeholders. Prior research found that the availability of internal and external support, along with trained facilitators and flexible delivery of training units, were key enablers in dementia training and education programmes (Heward, Board, Spriggs, Blagden, & Murphy, 2021; Surr, Parveen, et al., 2020) when implementing evidence-based guidance (Coffey et al., 2021; Karrer et al., 2020; Seidel et al., 2022). The fractured engagement processes and lack of skilled facilitation, insufficient training opportunities, particularly in relation to the champions' role, undermined some of the expected benefit of the employed co-design strategies. Insufficient opportunities for training has been previously found to be a barrier (Karrer et al., 2020). Future implementation efforts therefore need to focus on building-up and maintaining staff and stakeholder participation and engagement, sufficient time and degree for training opportunities, role development and implementation process, as well as on-side support.

As for individual characteristics, we found that prior to implementation, nurses' competencies in dementia care (SCIDS) were well developed while skills in family care (FNPS) were less developed. This is in line with results reported in other studies within acute care settings (Scheper et al., 2012; Zwicky et al., 2022). Many recent efforts in improving dementia care have focused on developing staff skill and competencies, but Surr and colleagues (2020) found that staff capabilities were not a significant barrier to the delivery of person-centred dementia care. Our study also suggests that it is important to develop staff self-efficacy, but implies that it may not be the main issue needing to be addressed. Rather, a focus on team capability and organisational capacities is needed. Furthermore, levels of adoption of person-centred, evidence-based care interventions (POPAC-R) were rated rather low on the 'individualized care', while 'using cognitive assessments and care interventions' was rated high, suggesting that assessing cognitive impairment happened frequently, but individual needs-responsive care and involvement of family, occurred more seldom. These ratings are within a similar range than those having been previously reported (Grealish et al., 2021), but tend to be higher than those in non-geriatric specialists within acute settings (Ernst et al., 2020). Our findings suggest that even though staff consider their level of competency to be moderate to high, their skills do not necessarily translate into improvements in evidence-based dementia care.

Following the five-month implementation phase, the seven champions rated their skills, competencies, and the extent of person-centred evidence-based care lower than their peers did prior to implementation, despite a higher educational preparedness in dementia care and more work experience. Unfortunately, these data do not provide much information power due to the small size. Yet, similar findings have been reported in a previous study evaluating the adoption of person-centred care practices in the Kansas PEAK 2.0 programme (Cornelison et al., 2019). In this study, pre-implementation scores were also significantly higher than post-implementation. We think that champions had gone through a period of reflection and learning about evidence-based dementia and family care, which may have resulted in a different perceptions of their own skills and actual

adoption of best practices on their units. Cornelison and colleagues concluded that a change of perspective regarding person-centred care practices explains the counter-intuitive results, which may also be the case in our study.

In the focus group interviews, participating champions reported mixed feelings regarding their ability to implement the pathway with bundle in their own practice and within their teams. Champions' statements of feeling overwhelmed and insecure regarding the tasks to train their peers imply a lack of self-confidence and indicate that they may not have been convinced about the success of the intervention project as a whole. Believing in once confidence to perform a certain tasks and achieve positive outcomes are thus important components of success and contribute to a person's sense of self-efficacy (Resnick, 2014). Consequently, paying close attention to those aspects while working with clinical staff in designing and conducting an implementation project seems crucial.

5.1 | Limitations and strengths

This process evaluation draws on qualitative and quantitative data. The sample sizes were, however, very small. While the pre-implementation sample was large enough, the post-implementation questionnaire was completed only by those involved in the implementation. Only one focus group interview could be held, although with all champions participating. This study is monocentric and exploratory in nature and seeks to harness insights gained from failed implementations, thereby adding to the body of knowledge on implementation in dementia care in acute settings. The use of an implementation science framework—the CFIR denotes a strength, as it adds to the theoretical body on contextual influencers to implementing evidence-based care pathways and bundles in acute care settings.

6 | CONCLUSIONS

Improving evidence-based dementia care delivery within acute care settings is needed but remains challenging. Many implementation efforts rely predominantly on training and education based on an understanding that lack of staff skill and competence limit person- and family-centred dementia care delivery. While such individual characteristics do indeed play a role, our study implies that organisational and process factors are the most influential determinants to the implementation and delivery of dementia care in acute care settings. The complexity of dementia care, along with the complexity of care environments, add to the difficulty of improving care delivery. Our evaluation of a 'failed implementation' suggests that assessing and addressing organisational readiness in terms of available resources and implementation climate, such as compatibility of the 'new' intervention with existing care processes and culture, may provide the most leverage to improvement. Complexity of intervention design needs to be reduced to ensure feasibility and acceptability.

Close collaboration and consistent and unwavering engagement of all affected persons, including patients, family members, clinicians, and managers of all disciplines in planning and executing the implementation is likely to create the momentum needed to integrate new care practices, such as the dementia care pathway with intervention bundles investigated here. Future implementation efforts should draw on the evolving body of knowledge within implementation science and dementia care research to ensure evidence-based integration and improvement processes. Future research is needed to investigate the clinical and implementation effectiveness of dementia care, particularly within acute settings.

7 | RELEVANCE TO CLINICAL PRACTICE

Efficient use of research evidence and of resources in order to improve care is important. This study focuses on improving care to older persons with ADRD/MCI who enter acute care settings due to experiencing an acute health care problem that may impact significantly on their health and well-being, functional status and living situation. Study findings of staff competencies and insights on current levels of adoption of evidence-based care, together with the insights on organisational barriers and key success factors for implementation success provide important guidance for clinicians, managers, and quality improvement professionals in the area of acute care, suggesting ways to undertake improving dementia care in hospitals.

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CONFLICT OF INTEREST STATEMENT

The authors have no conflict of interest to declare.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available on request from the corresponding author. The data are not publicly available due to privacy or ethical restrictions.

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SUPPORTING INFORMATION

Additional supporting information can be found online in the Supporting Information section at the end of this article.

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