

Special Issue: Implementation Science in Gerontology: Research Article

# Implementing Four Transitional Care Interventions for Older Adults: A Retrospective Collective Case Study

Amal Fakha, MPH,<sup>1,2,\*</sup> Merel Leithaus, MSc,<sup>1,3</sup> Bram de Boer, PhD,<sup>1,2</sup> Theo van Achterberg, PhD,<sup>3</sup> Jan P. Hamers, PhD,<sup>1,2</sup> and Hilde Verbeek, PhD<sup>1,2</sup>

<sup>1</sup>Department of Health Services Research, CAPHRI Care and Public Health Research Institute, Maastricht University, Maastricht, The Netherlands. <sup>2</sup>Living Lab in Ageing and Long-Term Care, Maastricht, The Netherlands. <sup>3</sup>Department of Public Health and Primary Care, Academic Centre for Nursing and Midwifery, KU Leuven, Leuven, Belgium.

\*Address correspondence to: Amal Fakha, MPH, Department of Health Services Research, CAPHRI Care and Public Health Research Institute, Maastricht University, Duboisdomein 30, 6229 GT Maastricht, The Netherlands. E-mail: [a.fakha@maastrichtuniversity.nl](mailto:a.fakha@maastrichtuniversity.nl)

Received: February 25, 2022; Editorial Decision Date: July 22, 2022

**Decision Editor:** Julie Bobitt, PhD

## Abstract

**Background and Objectives:** Four interventions to improve care transitions between hospital and home or community settings for older adults were implemented in Leuven, Belgium over the past 4 years. These complex interventions consist of multiple components that challenge their implementation in practice. This study examines the influencing factors, strategies used to address challenges in implementing these interventions, and implementation outcomes from the perspectives of health care professionals involved.

**Research Design and Methods:** This was a qualitative, collective case study that was part of the TRANS-SENIOR research network. Authors conducted semistructured interviews with health care professionals about their perceptions regarding the implementation. Thematic analysis was used, and the Consolidated Framework for Implementation Research guided the final data interpretation.

**Results:** Thirteen participants were interviewed. Participants reported major implementation bottlenecks at the organizational level (resources, structure, and information continuity), while facilitators were at the individual level (personal attributes and champions). They identified engagement as the primary strategy used, and suggested other important strategies for the future sustainability of the interventions (building strategic partnerships and lobbying for policies to support transitional care). They perceived the overall implementation favorably, with high uptake as a key outcome.

**Discussion and Implications:** This study highlights the strong role of health care providers, being motivated and self-driven, to foster the implementation of interventions in transitional care in a bottom-up way. It is important to use implementation strategies targeting both the individual-level factors as well as the organizational barriers for transitional care interventions in the future.

**Keywords:** Barriers, Facilitators, Innovations, Integrated care, Strategies

## Background and Objectives

Across Europe, the population of older adults (65 years and above) with chronic disease and multimorbidity has risen dramatically in recent years (Palladino et al., 2019). Moreover, older adults have increased health care

utilization (Barnett et al., 2012) and are at higher risk of care transitions between multiple care settings (Baxter et al., 2020). Unfortunately, care transitions are vulnerable phases for older adults, who are often confronted with care fragmentation and a lack of coordination among health care

providers (Coleman, 2003). This leads to compromised patient outcomes, such as medication errors or more hospital readmissions (Scott et al., 2017). To address this challenge, the concept of integrated care was encouraged to enhance transition and coordination across or within the different levels and sites of care sectors (WHO, 2016).

Integrated care approaches (i.e., across different care settings, such as hospitals and primary or community care) are promising solutions to improve the quality and efficiency of care transitions for older adults (Brown & Menece, 2018; Goodwin, 2016). In this study, we focus on interventions with an integrated care approach that aim to improve the care transitions for older adults with chronic diseases between hospital and home or community settings, which we refer to as transitional care interventions (TCIs). Recent global forces in health care delivery to enhance transitional care for older adults have driven the development and implementation of a plethora of innovative TCIs embedding integrated care (Antunes & Moreira, 2011; Deschodt et al., 2020; Lee et al., 2022). However, although the effectiveness of these interventions is promising (Lee et al., 2022), there is still an inadequate awareness and understanding of how to successfully implement them in practice (Naylor et al., 2013). Furthermore, studies that comprehensively investigate the implementation (context, strategies, and outcomes) of these interventions are limited (de Bruin et al., 2018; Stadnick et al., 2019). To date, literature has highlighted that exploring implementation factors in the context is pivotal for implementing complex interventions in health care (May et al., 2016). Research has identified multiple factors (barriers and facilitators) influencing the implementation of integrated care and TCIs for older adults that often behave as two sides of the same coin (e.g., insufficient resources as a barrier/sufficient resources as a facilitator) depending on the context (Fakha et al., 2021; Ling et al., 2012). For example, low organizational readiness for change, regulatory challenges, failure to target the right population, and restricted knowledge on the intervention by implementers were key barriers to implement such interventions (Fakha et al., 2021; Maruthappu et al., 2015), while appointing champions to promote the interventions or assigning transition roles for staff were strong facilitators (Fakha et al., 2021; Threapleton et al., 2017).

Because of the complexity of implementing interventions such as TCIs, various implementation strategies described as methods used to improve adoption, implementation, and sustainment of interventions in health care practice were developed (Proctor et al., 2013). A few examples of such strategies include assessing for implementation readiness and identifying barriers/facilitators, involving executive boards, obtaining formal commitments, involving patients, expanding roles/shifting tasks, or using an implementation advisor (Cochrane, 2015; Powell et al., 2015). These strategies, especially when tailored to the context, can have potentially positive effects on the implementation. Yet, their use is either rare or not correct when observed in practice, where “we learn as we do” is more likely the

trend (Powell et al., 2019). Hence, there is an ambiguity on how to best embed these interventions in the actual world of transitional care practice, whereby even implementation strategies that can work in one setting might not in another.

Moreover, there is limited knowledge on the particular implementation of TCIs focusing on older adults with chronic diseases moving between hospital and home or community settings. A thorough study of all of the key aspects of implementation is still lagging behind in this field of care. Hence, there is merit to closely investigate this implementation in the real-life context and to obtain an in-depth understanding on what are the practical issues or guarantors of success.

## The Case: Four Transitional Care Interventions

In 2018, a government-led pilot project was launched in Leuven, within the Flemish region of Belgium, which aimed to improve integrated care for people with chronic diseases (Integreo, 2018). The main objectives were to improve the outcomes of population health, improve patient and provider experiences, and achieve better cost efficiency (Goderis et al., 2020). Within this project, four interventions focused on transitional care. This collective retrospective case study investigates the implementation of these four TCIs: (a) *intermediate care center*, (b) *envelope action/medication reconciliation*, (c) *caring neighborhood teams*, and (d) *chronic heart failure care program* for enhancing care transitions of older adults with chronic disease between hospital and home or community settings (Zorgzaam Leuven, 2018). The four TCIs were created in reference to guidance provided by the government on integrated care; however, the specific components of each of the interventions were developed from an assessment of the local care needs of the population in Leuven. The needs assessment was a result of discussions and consensus among a multidisciplinary team in the region, including general practitioners (GPs), homecare organizations, hospitals, social/community services, and a community pharmacists' network who agreed on the local care needs and designed the interventions accordingly (Winter, 2020).

This study aimed to qualitatively examine the four cases from an implementation science perspective, informed by the viewpoints of project coordinators and health care professionals involved in the implementation of the TCIs. The main study objective was to examine three key implementation aspects: (a) to explore which factors influenced the implementation of the TCIs, (b) to identify if any implementation strategies were used to implement the TCIs, and (c) to report on the implementation outcomes of the TCIs and the overall success.

## Research Design and Methods

### Study Design and Case Selection

This study used a qualitative collective case study research design (Crowe et al., 2011; Yin, 2009). We selected a case

study design with an interpretative and constructivist approach in order to obtain a naturalistic and an in-depth understanding of a complex and context-dependent issue (implementation of TCIs) as perceived by health care professionals (Crowe et al., 2011; Stake, 1995). Cases were defined as the four TCIs. For each case, data were collected using interviews to explore various implementation aspects from the perspectives of project coordinators and health care professionals.

### Intervention Selection and Description

An initial meeting with the project coordinators of the overarching integrated care pilot project led to the identification and selection of the interventions, which were focused on transitional care for older adults between hospital and home or community settings, implemented in Leuven. Table 1 describes each intervention based on information retrieved from the official project website and documents provided by the project coordinators (Zorgzaam Leuven, 2018).

### Participants

First, we identified the key contacts within the overarching integrated care project, who helped us determine the TCIs cases and directed us to the core project coordinators of these specific interventions. The project coordinators were particularly knowledgeable and played a critical role in developing and implementing the four TCIs (Hamilton & Finley, 2019; Palinkas et al., 2015). These project coordinators were interviewed then asked to suggest additional potential candidates using the snowball sampling. We ensured the inclusion of participants with either an in-depth knowledge of the TCIs' implementation and/or those who were involved in delivering the interventions directly (Hamilton & Finley, 2019). We invited 24 candidates for interviews by e-mail and sent a study information document and consent forms. Saturation was determined as reached when new interviews became redundant and provided little new information (Guest et al., 2016).

### Data Collection

#### Interviews

We conducted individual semistructured interviews using an interview guide (in the Dutch language) with questions and prompts specific to either project coordinators or health care professionals (Hamilton & Finley, 2019). We developed the questions with the aid of published frameworks and concepts on implementation factors, strategies, and outcomes. Hence, we used the Consolidated Framework for Implementation Research (CFIR) interview tool in order to obtain perspectives on the implementation of the TCIs; for the complete interview guide, see Online Supplementary

Material Section 1 (CFIR, 2022b; Damschroder et al., 2009; Powell et al., 2015; Proctor et al., 2011). The guide was tested prior to use among the research team, and two masters-level student researchers performed the interviews between February and April 2021, with either of the authors (A. Fakha or M. Leithaus) also present as observers. The interviews (lasting an average of 55 min) were conducted online using a data-protected video conferencing tool then recorded and transcribed verbatim. Transcripts were translated into English by the students who are native Dutch language speakers and checked by author M. Leithaus as the Dutch-speaking researcher. Then, all transcripts were entered into NVivo (QSR International Software) for coding and analysis.

### Data Analysis

We conducted a combined thematic analysis, starting with an inductive and then a deductive approach and following a six-step methodology (Braun & Clarke, 2006). This data-driven analysis with an interpretative and constructivist approach served the objective of building knowledge about and understanding the implementation of the TCIs from the perspectives of individuals involved in the process. Authors (A. Fakha and M. Leithaus) analyzed the data supported by NVivo; see Table 2 for steps of the inductive analysis and Online Supplementary Material Section 2 for illustrations of the coding. All transcripts were combined together, and the pooled data were used as one main unit of analysis to allow a collective data analysis and not a comparative one among the cases (Yin, 2009).

The second stage of the analysis followed a deductive approach and involved mapping data within the themes only pertaining to the influencing factors to the CFIR's domains/constructs, using the CFIR's codebook; see Online Supplementary Material Section 3 for the description of the CFIR constructs (CFIR, 2022a). This provided a further classification and interpretation of the findings on the implementation factors.

### Ethical Considerations

The study was approved by the Ethics Committee Research UZ/KU Leuven (approval number MP017284), and an informed consent form was obtained from each participant.

## Results

### Participants' Characteristics

Thirteen participants (five project coordinators and eight health care professionals) were interviewed as the following: four (Case A), two (Case B), five (Case C), and three (Case D). One participant was involved as a project coordinator in both Cases A and B, and hence was interviewed twice. The participants were almost equally

**Table 1.** Description of the Four Transitional Care Interventions (TCIs)

Description	Case A: Intermediate care center	Case B: Envelope ac-tion/medication recon-ciliation	Case C: Caring neighborhood teams	Case D: Chronic heart failure care pro-gram
Overview	An interim center referred to as “bed house” is developed inside a hospital—initiated during the outbreak of the COVID-19 pandemic. It is a care transition unit between hospital and home settings and vice versa. Implementation started in April 2020 and lasted for approximately 3 months (first wave of COVID-19).	An envelope that contains the patient’s medication scheme and prescriptions is provided to patients upon discharge from hospital and addressed to the community pharmacist. Implementation started in 2018. <sup>a</sup>	A network of multidisciplinary primary care providers and social workers within one neighborhood, that work jointly on improving care at the population level. The teams focused on mapping the chronically ill and vulnerable individuals with multimorbidity within the neighborhood and providing care coordination tailored to their needs. Implementation started in 2018. <sup>a</sup>	A care program developed specifically for heart failure disease management and care coordination. Implementation started in 2018. <sup>a</sup>
Function	To prevent hospital bed-blocking by accom-modating patients that are either medi-cally stable to be discharged from hospital but not yet able to return to their home due to social and medical reasons, or have care needs which were too complex to be able to stay at home but did not require hospitalization.	To facilitate medical information transfer between hospital care and the community pharmacist in order to perform medica-tion reconciliation (checking for medica-tion discrepancies and medication-related issues) and patient counseling.	To ensure integrated and population-oriented care at the neighborhood level.	To ensure a close follow-up for the chronic heart failure patients discharged from the hospital.
Transitional care aim	Improve care transitions from hospital to home and vice versa.	Improve care transitions from hospital to home or community settings and prevent rehospitalization.	Prevent care transitions from home or community settings to hospital and reduce readmissions.	Improve care transitions from hospital to home and avoid rehospitalization.
Settings and care organ-izations involved	Hospital, intermediate care unit in the hospital, private home, homecare, and primary care.	Hospital, commu-nity pharmacists’ providers’ network, homecare, and pri-mary care.	Community service centers, social care, homecare, and primary care.	Hospital, community, private home, homecare, and primary care.

**Table 1.** Continued

Description	Case A: Intermediate care center	Case B: Envelope ac-tion/medication recon-ciliation	Case C: Caring neighborhood teams	Case D: Chronic heart failure care pro-gram
Other features	Use of the “Siilo application,” a digital communication tool developed and used among care providers within the center and outside, which enabled continuous communication flow to arrange care.			Home care nurse–role as heart failure pa-tient educator Structured transitional protocol to guide postdischarge care Development of a discharge checklist in the hospital’s EHR specific for heart failure postdischarge follow-up care E-learning course for GPs on heart failure management Automated diagnostic and qualitative audits in GPs’ EHR to improve chronic heart failure case finding

Notes: COVID-19 = coronavirus disease 2019; EHR = electronic health record; GP = general practitioner.

<sup>a</sup>The development and implementation of the TCIs were initiated in 2018 and continued until at least 2021 when this study was conducted. All four interventions were coordinated by a core team of project coordinators from within the different organizations involved across the interventions in the region and not one primary organization per intervention.

distributed between men and women; and their professions included pharmacists, GPs, nurses, physiotherapists, and cardiologists. All participants were located and working across the various care organizations relevant to each TCI implementation (Case). Table 3 provides a break-down of the participants’ professional backgrounds and demographics.

**Overview**

Our thematic analysis yielded eight themes reflecting the three implementation aspects studied (implemen-tation factors, strategies, and outcomes) for the four interventions combined. The relevant themes for each aspect are described later, see [Online Supplementary Material Section 4 \(Supplementary Figure 1\)](#) for listing of themes. In addition, a total of 28 codes were identified for the entire sample and across all themes; see [Online Supplementary Material Section 2](#) (illustrations of the coding) for the indi-vidual codes and count per each theme.

**Aspect I—Implementation Factors**

Four themes describing the factors influencing the im-plementation of the TCIs emerged. By mapping the data within these themes to the CFIR domains/constructs, we obtained a clearer vision on the influencing factors, which were found across all the CFIR’s domains. Key barriers were linked to the inner setting (organizational level), while main facilitators belonged to the characteristics of the individuals and the process of engaging. Table 4 presents the corresponding influencing factors as per the CFIR for each theme, along with the supporting quotes.

**Theme one: Significant barriers at the organizational level**

According to participants, the implementation of the interventions was mainly hindered by a lack of organiza-tional resources. They reported that the shortage of staff (e.g., nurses), heavy workloads, and insufficient time for care providers to perform their usual work duties plus new tasks exerted an extra pressure to implement the interventions (Table 4, quotes 3, 4). Moreover, participants indicated that low available funds for the implementation led them to operate with existing organizational budgets and resources (Table 4, quotes 5, 6). They reported that the budget provided by the government to care organiza-tions and project coordinators was below the requirements to support the implementation of the interventions. This led to a lack of funds to hire more staff or pay overtime hours for existing staff in order to support the implemen-tation. Correspondingly, one participant implied that not every organization could fulfill the structural demands as-sociated with implementing a specific intervention. This was seen in Case D, in which large organizations had better capacity to implement versus smaller ones (Table 4, quote



**Table 2.** Six Steps of Inductive Thematic Analysis (Braun & Clarke, 2006)

Steps	Description
1. Familiarizing with the data	Authors (A. Fakha and M. Leithaus) read through the full transcripts in order to familiarize themselves with the data and obtain an overall preliminary understanding of the content, alongside taking important notes.
2. Generating initial codes	The lead researcher (A. Fakha) started the inductive coding of all transcripts by first generating initial codes from the data, then collating the relevant extract data under each code. Simultaneously, M. Leithaus independently cocoded all the same transcripts. After rounds of coding, A. Fakha and M. Leithaus reviewed and compared the codes along with the coded data extracts, and minor disagreements were discussed and resolved.
3. Searching for themes	Following four rounds of coding and adjustments, A. Fakha developed an initial set of potential summary themes.
4. Reviewing themes	A. Fakha and M. Leithaus jointly reviewed the themes in relation to both the codes and the entire data set in an iterative way until both agreed on the final themes and their meaningfulness. Then, they developed a thematic map to provide an overview of the analysis.
5. Defining and naming themes	The research team developed, discussed, and agreed on a clear description, detailed summary analysis, and naming of each theme.
6. Producing the report	The research team produced a final report summarizing the key analysis results with selected quotes from the data, which they aligned it with the existing literature on implementation science concepts.

1). Furthermore, the absence of an integrated health information technology (HIT) platform within and between different care organizations compromised the communication among teams and the exchange of patients' medical information during care transitions (Table 4, quotes 2, 7, 8). Participants also identified another barrier to implementation in the outer setting of the implementing organizations. The presence of multiple and misaligned governmental health care policies (federal or regional) and a fragmented financing structure for integrated care services impeded a smooth implementation of the interventions (Table 4, quotes 9, 10).

#### **Theme two: Power of committed individuals—"the key triggers and facilitators"**

Across the cases, the presence of a triad of highly motivated, committed, and self-driven care providers who initiated the implementation with a bottom-up approach was perceived as a big facilitator (Table 4, quote 11). Participants emphasized that the implementers' strong willpower, combined with their great enthusiasm to improve care for older adults with complex care needs was necessary to the implementation of the interventions (Table 4, quotes 14, 15). In addition, the existing work relationships among GPs, nurses, social workers, and other providers, along with supportive community resources, enabled a smooth implementation (Table 4, quotes 12, 13). Correspondingly, participants reported that engaging the right individuals (key stakeholders, champions, and innovation participants) was critical to the implementation (Table 4, quotes 16–19). In addition, participants highlighted that the champions of the TCIs played a key role in achieving buy-in for implementation through being present at implementation sites

and leveraging their internal connections. These champions created awareness about the interventions, motivated care providers, and convinced them to adopt it. Similarly, involving the key stakeholders and players, such as pharmacists' representatives in Case B or large GP practices in Case C, facilitated the implementation, according to participants' viewpoints (Table 4, quote 20).

#### **Theme three: Imperfect fit between interventions' components and older adults' profile**

The interventions' design and elements at times mismatched the care needs and characteristics of the target population of older adults, which in turn impeded the implementation (Table 4, quote 21). From the participants' point of view, the patient identification criteria of some interventions (Cases C and D) or the ability to accommodate their complex medical and psychosocial needs was difficult (Table 4, quotes 22, 23). Nevertheless, it was indicated that sometimes the older adults' insufficient knowledge on how an intervention works (Case B), their low information technology (IT) competences, or insufficient awareness of the interventions' components posed challenges to the implementation (Table 4, quotes 24, 25).

#### **Theme four: Disruption of implementation by COVID-19**

Participants reported how the coronavirus disease 2019 (COVID-19) pandemic disrupted the implementation of the interventions in various ways. Mainly, there were difficulties in communication among care providers, which was problematic in managing and implementing the interventions (Table 4, quotes 26, 27). Furthermore, during COVID-19 the numbers of older persons enrolled in the interventions were much lower such as in Case D, so that home education

**Table 3.** Description of the Participants

Cases	Participants <sup>a</sup>		Time of involvement in the TCI
	Profession (N, gender)	Organization type	
Case A Intermediate care center	Project coordinators: <i>Pharmacists (3W)</i> HCP: <i>Homecare nurse (1M)</i>	Community pharmacists' providers' network Homecare organization	Approximately 3 months
Case B Envelope action/medication reconciliation	Project coordinators: <i>Pharmacist (1W)</i> HCP: <i>Pharmacist (1W)</i>	Community pharmacists' providers' network	Average of 3 years <sup>b</sup>
Case C Caring neighborhood teams	Project coordinators: <i>Physiotherapist (1W)</i> HCP: <i>Physiotherapist (1M), GP (2M), Policy advisor welfare and care (1W)</i>	Hospital Primary care group practice, GP group practice, Government administration for Leuven city	Average of 3 years <sup>b</sup>
Case D Chronic heart failure care program	Project coordinators: <i>GP (1M)</i> HCP: <i>Cardiologist (1M), Nurse (1M)</i>	GP group practice Hospital	Average of 3 years <sup>b</sup>

Notes: W = woman; M = man; HCP = health care professional; GP = general practitioner; TCI = transitional care intervention.

<sup>a</sup>All participants are White, of European origin (race).

<sup>b</sup>Time of involvement in each intervention could be variable but is presumable to be an average of 3 years, between year 2018 when the development and implementation of the interventions started, and until at least 2021 when this study was conducted.

of the chronic heart failure program patients was discontinued (Table 4, quote 28). As seen in Case C, by contrast, the implementation of this intervention was accelerated during the pandemic in light of an urgent need for creating a sense of community, delivering medications to homes, providing support, and making formal agreements with hospitals on discharge policies (Table 4, quote 29).

## Aspect II—Implementation Strategies

### Theme five: Engagement as a significant implementation strategy used

Bringing all key actors together, creating knowledge exchange collaborations, capitalizing on existing health care providers' unions, and identifying early adopters were seen as the main engaging activities that supported the implementation of the four TCIs. In Case A, project coordinators indicated that health care providers in the hospital and intermediate care center, home care nurses, and pharmacists were actively engaged and brought together to establish working agreements for the intervention.

“A moment with healthcare providers from the hospital and the center and another one from home setting and nurses from the center. It was really a moment that they were engaged of making these agreements, which is very important.” (Project Coordinator, Case A)

Furthermore, project coordinators explained how they ensured the buy-in and active participation of health care providers by communicating the processes required for the interventions and demonstrating the benefit.

“I started to explain this action and always with the nurse or the head nurse of the department and then try

to convince them or make them see the benefit of it.” (Project Coordinator, Case B)

“We actually just set up these processes and then communicated them to the doctors. They were very happy that there was a process and noticed immediately that it went well. So it didn't really take much effort to get people on board. The team spirit was there from the start ... especially with the doctors that went very smoothly.” (Project Coordinator, Case A)

Utilizing the existing health care providers' unions was another way to bring together all interested parties and key stakeholders (e.g., pharmacists' associations and home care organizations), leading to higher engagement in developing protocols for implementing interventions such as in Case D. Moreover, the implementation of interventions, for example in Cases A and B, was supported by collaborating and engaging with the university hospital in Leuven, which helped project coordinators exchange expertise and knowledge. Similarly for Case C, it was reported how the implementation of caring neighborhood teams was driven by ensuring a bottom-up cooperation and involvement. Therefore, primary health care providers with an already innovative idea were identified and invited to take lead in implementing the intervention.

“The early adopters, who are the people already working on things and who are the quickest to get involved or who want to take the lead. And so, we brought them together to say, this is what we want to do, we are going to start up neighborhood teams ... do you want to cooperate and are you prepared to set up a neighborhood team in your area together with us? So, that is how we approached it.” (Project Coordinator, Case C)

**Table 4.** Quotes Illustrating Factors Influencing the Implementation of the Four Transitional Care Interventions (TCIs)

Theme	CFIR (domain/factor)	Quotes <sup>a</sup>
Significant barriers at the organizational level	Inner setting: Structural characteristics	(1) “So, in practice, you only see it being rolled out in the centers that are indeed capable of it and those are really the larger centers ... who are big enough, the cardiologists who are willing to do that, and who can convince the hospital that it is important.” (HCP, Case D)
		(2) “Yes, in terms of stumbling blocks. I think it is really just communication with GPs that is the biggest issue, but ... they are looking for a digital solution.” (HCP, Case D)
	Networks and communications	(3) “The obstacle in the implementation is that I personally have to be able to do it within my time.” (HCP, Case D)
		(4) “Things that discourage are the administrative burden, things that have to be done extra, lack of time, all the care providers simply have an impossible amount of work and they are always short of time.” (Project Coordinator, Case C)
	Readiness for implementation—available resources	(5) “That is the biggest challenge and in terms of barrier, that means lack of funding for staff, for interventions, well for everything.” (Project Coordinator, Case D)
		(6) “... when you say about the difficulties of financing, yes ... the funny thing was that there was actually rarely a budget for the nurse coordinator in the intermediate care center.” (HCP, Case A)
	Health information technology systems resources	(7) “So, communication by electronic means is the most difficult ... but the big problem remains finding a platform where first, second, and third can communicate.” (HCP, Case C)
		(8) “What we have noticed and continue to notice that data sharing just doesn’t work, because you have different platforms.” (HCP, Case A)
	Outer setting: External policy and incentives	(9) “I think what is blocking us most of all is the fact that the supra-local policy is not so well coordinated; the federal health policy and the Flemish welfare policy.” (HCP, Case C)
		(10) “The way primary care is currently financed is not always very conducive to integrated care, because it actually keeps the partitions in place, and partitioning is difficult if the financing model doesn’t change.” (Project Coordinator, Case A)



**Table 4.** Continued

Theme	CFIR (domain/factor)	Quotes <sup>a</sup>
Power of committed individuals—"the key triggers and facilitators"	Intervention characteristics:	
	Intervention source	(11) "A very important one has been the neighborhood teams; these are teams of care providers in the first line. GPs, pharmacists, nurses, physiotherapists, psychologists, etc. who work together at neighborhood level on chronic patients and they implement the care programs ... that is actually how it came about from the bottom up, because the initiators of those neighborhood teams were the GPs." (Project Coordinator, Case A)
Outer setting:	Cosmopolitanism	(12) "We are very lucky to have a chronic care project in this region, because, yeah, healthcare providers they kind of know each other ... and that is like very beneficial or very facilitating for this cooperation." (Project Coordinator, Case A)
	Community resources	(13) "I think the fact that we have community centers and local service centers in Leuven is a good thing, yes, anchor points for a caring neighborhood." (HCP, Case C)
	Characteristics of individuals (health care providers and implementers):	
	Knowledge and beliefs about the intervention	(14) "In addition, what certainly plays a role is that, as I said at the beginning, there is a motivator for more quality care, so a facilitator or motivator, achieving support and shared responsibility are all things that motivate." (Project Coordinator, Case C)
	Other personal attributes	(15) "There is a lot of commitment, there is a lot of enthusiasm, there is a lot of goodwill and openness to try things not only to that heart failure project, but also to the broader project. So that is positive, but actually implementing it then yes, that also depends on how much personal affinity people or carers have with it. That varies greatly, but the basis is that there is a lot of goodwill ... it was our own motivation and commitment." (Project Coordinator, Case D)
Process-Engaging: Champions		(16) "What was good about facilitating us was the people (TCIs team) themselves. They really took the initiative to set up meetings with the community team because otherwise, I think, it would never have happened so quickly." (HCP, Case C)
		(17) "And (person name from TCIs team) was kind of more a backup ... that was very good because she is like the face of (TCIs), so this really helps for this kind of work; and I think this really works for the motivation of the pharmacists, the healthcare providers, in general." (Project Coordinator, Case A)
Key stakeholders		(18) "... but (person name from TCIs team) yes, she also works at hospital for her other job. So that was also a gateway to making it easier to contact other people within the hospital." "Yes, the pharmacists within (TCIs team) and (person name) are the representatives of the pharmacists. So, in the meantime you have good contact with most pharmacists, so that also helps to motivate them"; "So I think in this way they were the most important triggers for this action." (Project Coordinator, Case B)
		(19) "The fact that citizens are also involved means that they also see that yes, we can play a role in this." (HCP, Case C)
Innovation participants		(20) "That there are a number of strong players involved, two large GPs practices that are both committed ... a number of institutions are also involved." (HCP, Case C)
	Engaging organizations, external context	

Table 4. Continued

Theme	CFIR (domain/factor)	Quotes <sup>a</sup>
Imperfect fit between interventions' components and older adults' profile	Intervention characteristics:	
	Design quality and packaging	(21) "So those bottlenecks were initially the design of the envelope which was not clear enough for the older population, and something that clearly needed to be addressed was raising awareness among patients and nurses in any case, and also among pharmacists." (Project Coordinator, Case B)
	Targeted groups	(22) "... the problems are mainly related to identifying the right patient, and a second problem is once the patients are identified to get them to the right person, and that is something that is not quite running smoothly yet." (HCP, Case C) (23) "Being confronted once again with the complexity of the patient group that is indeed at risk, and the complexity is in the medical ... but also in the social, psychological, element that is really crucial, and that complicates a number of things, such as early care planning." (HCP, Case D)
	Characteristics of individuals (older adults):	
	Knowledge and beliefs about the intervention	(24) "We have also had a patient before who said I have had a lot of explanations, but I didn't understand a thing, so could you please do it again?" (HCP, Case B)
	Other personal attributes	(25) "Asking an 85-year-old to log into an app on his own. That is still difficult ... there will always be a generation gap with every modernization." (HCP, Case D)
Disruption of implementation by COVID-19	Outer setting—miscellaneous:	(26) "But we have never actually been able to sit together in real life with all the people from the neighborhood team, which made communication a bit more difficult in the beginning." (HCP, Case C) (27) "So yes, that was difficult because of COVID, that not everyone's role was equally clear ... who can I talk to and who is here." (Project Coordinator, Case A)
		(28) "That was a real disaster, wasn't it? You saw that within the care program not only on cardiac consultation simply. I think we had a time when 30% of the patients did not show up without calling. If necessary, I would say give the people a tablet so that I can give them their education via the computer, but the people all refused. That really was a period of time; I think it was more than two months that I couldn't include anyone." (HCP, Case D)
		(29) "I think very strongly. On the one hand, there are many bottom-up initiatives. I think much more than in other times. Neighbors helping each other out ... A lot has been set up. There are also, I think, a lot of agreements with hospitals ... their discharge policy. I know that the pharmacists have also taken very nice actions with home delivery of medication; so many things have been accelerated. So that has been very nice." (HCP, Case C)

Notes: CFIR = Consolidated Framework for Implementation Research; HCP = health care professional; GP = general practitioner; TCI = transitional care intervention; covid-19 = coronavirus disease 2019.  
<sup>a</sup>The presented quotes are representative of and can be generalizable across the cases.

Also, the appointment of a reference person with a facilitator role for the intervention was perceived a manner to drive the implementation and help resolve arising issues.

“... that is really very important in implementation that there is a person ... the person of that intervention ...”  
(Project Coordinator, Case B)

#### **Theme six: Implementation guided by overarching project plans and protocols**

Participants explained how a formal implementation blueprint for the interventions was lacking and instead a general project plan existed. This plan was developed for all interventions combined and in collaboration with health care providers and organizations involved; however, it was modified since its initiation and was not followed exactly as it should be.

“Now, of course, that plan is evolving and in the meantime it is already four years old. So, we no longer implement exactly what was in the original plan at the time, but we do implement the broad outlines.” (Project Coordinator, Case A)

Protocols, guidance documents, and training plans were developed to support the implementation. However, participants noted that health care providers implementing the interventions did not always adhere to the exact project plans or their predefined responsibilities but rather implemented them in a more intuitive manner.

“So there was like a protocol to make sure the operation or implementation would be good.” (Project coordinator, Case A)

“... and then a protocol was drawn up. This is how the care should be for heart failure patients, and these are everyone’s responsibilities.” (Project Coordinator, Case D)

#### **Theme seven: Imperative elements and suggestive strategies for future sustainability of the interventions**

Participants recommended a number of strategies for the future sustainment of the implementation of the four TCIs. First, securing sufficient and continuous funding for the interventions was expressed as crucial to maintain the resources (e.g., staff and HIT) needed for implementation.

“There is always a financing side to sustainability.” (health care professional [HCP], Case C)

“... so more funding, more resources, more staff for the primary care areas ... and better means of communication ... better e-health possibilities integrated in the medical files ...” (Project Coordinator, Case D)

Second, involving the government and vouching for supportive policies for providers of transitional care (e.g., reimbursement structures) was seen as another key strategy.

“I think the general lesson is that around transition of care, the government should be a real partner of care providers to make this possible. I think that is a precondition. I feel that is still not enough. I also think that the region should be given the freedom to experiment and that sufficient financial resources should be made available to make this possible.” (Project Coordinator, Case A)

Third, building strategic partnerships, making formal agreements, and instituting the interventions within large health care organizations were indicated as highly needed.

“I think a broader partnership is needed. I say if you want a home care worker at the table locally, then that also has to be coordinated supra-locally and that is why in the future we are going to have a real partner consultation with the strategic partners, where we can make agreements with the management level of home care services ... of umbrella organizations of residential care centers about how their staff can be involved.” (HCP, Case C)

Fourth, ensuring the presence of motivated implementers (e.g., champions of the interventions) that lobby continuously for the interventions to keep it going on, as well as building a team capacity with the right skills, was indicated as instrumental for sustainability.

“I think first of all you have to have a permanent team that coordinates everything and that can fill in and handle everything perfectly. And to ensure continuity, who know what they are doing.” (HCP, Case D)

The last strategy suggested was to consistently monitor the implementation of the interventions and to obtain convincing data on patient outcomes in order to demonstrate the interventions’ benefits and help sustain it.

### **Aspect III—Implementation Outcomes**

#### **Theme eight: A satisfactory and quick-start implementation**

Participants regarded the implementation as favorable, and indicated that the implementation started rather quickly and smoothly with noticeable enthusiasm and collaborative work, see [Table 5](#).

*Adoption* of the interventions by the health care providers was high initially, and many were easily convinced, attracted, and open to adopting the new practices, although it slowed as time passed. The adoption was high among the pharmacists and also providers with a younger age who were more willing to adopt new innovations. Participants indicated that developing an intervention from within; and by the health care providers of each community, created a sense of group feeling and promoted its adoption.

*Appropriateness* of the intervention’s components to the care needs of the target population of older adults was

**Table 5.** Quotes Illustrating the Implementation Outcomes of the Four Transitional Care Interventions (TCIs)

Implementation outcomes	Quotes
Adoption	<p>“Yes, the pharmacists are very motivated; the adoption rate is also very high. I think that is because they are actually appreciated for something that they have always done and now they get the right information.” (Project Coordinator, Case B)</p> <p>“What shocked me in a positive way is how little energy I had to put into convincing others to participate. I didn’t have to convince anyone. It was like, of course we’re going to participate ... certainly in the beginning I didn’t have to make any effort to draw people into this story.” (HCP, Case C)</p>
Appropriateness	<p>“Because sometimes they themselves are not well ... they need care ... Yes, I sometimes have the feeling that perhaps without realizing it, you are deciding too hard for them, which is best for them.” (HCP, Case C)</p>
Acceptability	<p>“The important thing is that you also ask your patients what do you want and what are your goals? And we actively questioned that, because we had an objective scale, but we also wanted to look at ‘Do you want to go back home, yes, okay, what can we help you with? How is your home situation? But also, how can we help you physically?’ So, you need that active participation from your patient anyway.” (HCP, Case A)</p> <p>“Very satisfying in that way that they have to worry a lot less ... I think that is positive for them, that they feel more acknowledged and that in itself provides a more positive experience.” (HCP, Case B)</p>
Fidelity	<p>“We have planted the seed and put forward the idea, but we have said this is the way that you could do it, but as a neighborhood team you may want to decide to do it differently, as long as you make sure that you do population management ...” (Project Coordinator, Case C)</p>

Note: HCP = health care professional.

sometimes not achieved, according to the participants. For example, in Case C, the neighborhood caring team’s intervention provided overarching services to various target groups in the community, which might not fit the specific needs of each group. Participants noted that health care providers tend to presume the needs of the older adults and decide on their behalf. However, in some instances, health care providers were keener to involve and ask the older adults for their needs and then helped them to acquire it.

The interventions were perceived as of high “*acceptability*” and added value to the older adults. Participants indicated that older adults were satisfied and felt supported and acknowledged with the care services provided by the interventions.

“*Fidelity*” to the interventions’ core components has changed across the implementation, whereby some were performed in the same manner and as originally planned, but some interventions’ components were no longer delivered or were adapted according to the local context (i.e., community needs such as in Case C).

## Discussion

Findings revealed that the prominent implementation barriers of the four TCIs were linked to the organizational setting and included insufficient resources and funding, a small structure with low capacity, suboptimal internal work networks and communication, and discontinuous information exchange between care providers. On the other hand, the project coordinators and health care providers’ great motivation and commitment, as well as strong beliefs and favorable attributes to initiate and drive the implementation, were facilitators. Also, the presence of champions for the TCIs fostered the process further. In this study, strategies used to implement the interventions were limited yet largely focused on engaging the right people, such as early adopters, key actors, and existing partners. Participants suggested other key strategies are needed (e.g., monitoring and lobbying for transitional care policies) to continue the implementation of the four TCIs in the future. Overall, participants perceived the implementation outcomes as favorable, as indicated by quick and high adoption, as well as general acceptability, yet participants also reported variable appropriateness of the interventions’ components to the needs of the older adults.

The current results are in line with our previous work on factors influencing the implementation of TCIs in general, as reported in a scoping review (Fakha et al., 2021). However, unlike the scoping review, in this case study, we found a clear distinction implying that key barriers belonged to the organizational setting while facilitators were linked to the characteristics of individuals and the implementation process (engaging). Similarly, Lutz et al. (2020) showed that health care providers’ willingness, commitment, and ownership were enablers for the implementation of TCIs. Our results were further mirrored in a systematic review

on implementing integrated care interventions, which identified factors at organizational and health care system levels (e.g., limited staffing capacity, poor communication, and restrictions in funding reimbursement systems) as implementation barriers (Sadler et al., 2019). In contrast with this, however, it was seen in other studies on the implementation of TCIs that individual-level factors behaved more as barriers or had a mixed influence (Fakha et al., 2021; Geerligs et al., 2018). Another important barrier in this study was the lack of coordinated and well-structured national health policies to support the implementation of the four TCIs. Likewise, this resonates with recent evidence from Belgium indicating that its current federal government structure, health care financing system, and lack of digital system/data sharing among providers hinders the implementation of care integration in general (Danhieux et al., 2021). One factor we missed in this study was leadership which was not pointed out explicitly as a crucial factor to the implementation, as frequently recognized in the literature (Fakha et al., 2022). Perhaps this could be because the project coordinators and health care professionals saw themselves as the leaders and facilitators of the four TCIs, hence driving through the implementation accordingly.

Our analysis deduced that engagement was the major implementation strategy used, although it was performed intuitively, and without any previous decision. It is most likely that the strategies used came habitually to project coordinators and health care providers and were outside their awareness of growing evidence indicating the essential role of using implementation strategies to put new interventions in practice. Nonetheless, these strategies coincide with known ones (e.g., facilitation, conducting education/training meetings, and obtaining work commitments) being used in the implementation of other TCIs (Toles et al., 2021). At the same time, in this study, there was no local needs assessment, identification of barriers and facilitators beforehand, or development of monitoring systems, which are commonly recommended implementation strategies (Powell et al., 2015).

According to our study, the individuals' realm of personality, attributes, beliefs, and cognition was a distinguishable facilitator to the implementation. The underlying key lever here was their continuing motivation coupled with a strong intention to bring about the change (behave differently to implement the four TCIs) in order to achieve expected outcomes. Our results confirm and expand the existing evidence regarding the role of human agency in changing behavior, as explained by various social cognitive/behavioral theories (Bandura, 2001; Michie et al., 2011). Notably, it was established that motivation is essential to both instigate and direct behavior, especially new behavior (Schunk & DiBenedetto, 2020). As per Michie et al.'s behavior system, motivation sits at the core and in between the individual's capability (physical, psychological) and opportunity (all factors outside the individual, i.e., context) and can directly induce behavior (Michie et al.,

2011). Therefore, it is of no surprise that implementing new interventions, such as TCIs, should involve considering this behavior system and choosing strategies to leverage the individual's motivation and capability (Michie et al., 2013). Hence, focusing on the internal factors of individuals has a high potential to achieve a target behavior and thus implement new interventions.

Even though individual factors appear promising for enabling a successful implementation, individuals are often part of a whole organization. Organizational factors (mainly unavailability of resources) are frequently reported, or better "blamed" as we saw in our study, for hindering the implementation of new interventions in transitional care. This rhetoric of organizational barriers necessitates further exploration. The concept of "organizational adaptation" is relevant, whereby organizations can rearrange their existing capabilities (e.g., operational capacity, infrastructure, and financial resources) to implement a new intervention (Lengnick-Hall et al., 2020). As an example, a hospital wanting to incorporate a transition care nurse (considered a TCI) can do minimal adaptation by changing the job duties/description of a present frontline nurse without a new hire. This relates to looking inside organizations for slack resources—a cushion of extra staff, time, and space—that goes usually underassessed but can actually be used for implementing a new intervention (Mallidou et al., 2011). Organizations can be more dynamic in utilizing their capabilities to implement change by continuously reflecting/tweaking their inefficient work routines or taking low-cost initiatives (e.g., form new alliances between hospitals and homecare services in one region to enhance care transitions; Karali et al., 2018). Nonetheless, these strategies are ultimately linked to the presence of individuals within the organization who also possess dynamic and influential capacities sufficient to foster change.

## Strengths and Limitations

The present study has some limitations. Selection bias can play a role, however, the sampling methods used allowed us to obtain insights from the core individuals involved who were the closest to the implementation process. The number of participants and their occupations as interviewed per case was not evenly distributed, yet we chose to combine the data in one unit of analysis. Also, if more information on the participants' age and length of time in each profession were available, it could have added to the interpretation of the findings. We note that the representation of diversity in a study sample is important. Therefore, if participants of other ethnicities were included, there might have been more diverse viewpoints presented, other elucidations to data patterns, and possibly better generalization of the results. The retrospective data collected were based on self-reporting and reflection, which could be subject to personal recall biases. Nevertheless, our study's strength lies in providing a broad and in-depth understanding of how the



implementation of TCIs occurs in real-life, using an implementation science approach.

## Implications for Practice and Research

Given both the lack of insight about the influencing factors and the absence of a deliberate selection of implementation strategies prior to implementing the four TCIs, we hereby propose recommendations to implement TCIs using implementation science concepts.

(1) *Understand the context early on*—Prior to any implementation effort, a thorough assessment of the contextual factors is vital and gives a heads-up to implementers. Checking what can hinder/enable the implementation in a specific context can help capture the complexity of the settings involved, especially in transitional care. This allows implementers to understand the capabilities and opportunities existing in their current context, and whether a new TCI has a chance to be implemented.

(2) *Use implementation strategies*—Choosing strategies from the various available taxonomies can guide the implementers on how to best implement a TCI (Powell et al., 2015). Specific strategies must be carefully selected according to their effectiveness as well as the ability to address the relevant influencing factors.

(3) *Empower the people and forge partnerships*—Implementing TCIs is a team activity and requires leveraging the personal factors of the individuals involved. Knowing what motivates, activates, and inspires the individuals and offering it to them can support the implementation of a new TCI. Also, creating partnerships is nevertheless critical in transitional care; involving the key actors necessary for implementing a TCI can only propel the process.

(4) *Research*—First, future studies should examine more bottom-up initiatives of implementing TCIs performed with an intuitive implementation approach. This would allow comparison of such studies with planned pilots and trials. Second, developing implementation strategies tailored to TCIs and testing its effectiveness in practice is needed.

## Supplementary Material

Supplementary data are available at *The Gerontologist* online.

## Funding

This project is part of the research program TRANS-SENIOR Innovative Training Network funded by the European Union (more information is available at <https://www.trans-senior.eu/>). “This project has received funding from the European Union’s Horizon 2020 research and innovation program under the Marie Skłodowska-Curie grant agreement No. 812656.”

## Conflict of Interest

None declared.

## Acknowledgments

The research team wish to thank the project coordinators and health care professionals who participated in this study.

The analytic code, data coding schemes, and interview guide materials for this study can be shared with other researchers for replication purposes, and are available either in the [Online Supplementary Material](#) of the article or directly from the corresponding author upon request. Requests for data reuse require submitting a formal request to the TRANS-SENIOR research consortium, which will assess and consider if reuse is possible without privacy violations. Requests can be sent to the consortium’s central email address: [trans-senior@kuleuven.be](mailto:trans-senior@kuleuven.be). This study was not preregistered.

## References

- Antunes, V., & Moreira, J. P. (2011). Approaches to developing integrated care in Europe: A systematic literature review. *Journal of Management and Marketing in Healthcare*, 4(2), 129–135. doi:10.1179/175330311X13016677137743
- Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52(1), 1–26. doi:10.1146/annurev.psych.52.1.1
- Barnett, K., Mercer, S. W., Norbury, M., Watt, G., Wyke, S., & Guthrie, B. (2012). Epidemiology of multimorbidity and implications for health care, research, and medical education: A cross-sectional study. *Lancet*, 380(9836), 37–43. doi:10.1016/S0140-6736(12)60240-2
- Baxter, R., Shannon, R., Murray, J., O’Hara, J. K., Sheard, L., Cracknell, A., & Lawton, R. (2020). Delivering exceptionally safe transitions of care to older people: A qualitative study of multidisciplinary staff perspectives. *BMC Health Services Research*, 20(1), 780. doi:10.1186/s12913-020-05641-4
- Braun, V., & Clarke, V. (2006). Using thematic analysis in psychology. *Qualitative Research in Psychology*, 3(2), 77–101. doi:10.1191/1478088706qp0630a
- Brown, C. L., & Menec, V. (2018). Integrated care approaches used for transitions from hospital to community care: A scoping review. *Canadian Journal on Aging*, 37(2), 145–170. doi:10.1017/S0714980818000065
- de Bruin, S. R., Stoop, A., Billings, J., Leichsenring, K., Ruppe, G., Tram, N., Barbaglia, M. G., Ambugo, E. A., Zonneveld, N., Paat-Ahi, G., Hoffmann, H., Khan, U., Stein, V., Wistow, G., Lette, M., Jansen, A. P. D., Nijpels, G., Baan, C. A., & Consortium, S. (2018). The SUSTAIN project: A European study on improving integrated care for older people living at home. *International Journal of Integrated Care*, 18(1), 6–6. doi:10.5334/ijic.3090
- Cochrane. (2015). *Effective Practice and Organisation of Care (EPOC)*. *EPOC Taxonomy*. Retrieved 10 January 2022 from <http://epoc.cochrane.org/epoc-taxonomy>
- Coleman, E. A. (2003). Falling through the cracks: Challenges and opportunities for improving transitional care for persons with continuous complex care needs. *Journal of the American Geriatrics Society*, 51(4), 549–555. doi:10.1046/j.1532-5415.2003.51185.x
- Consolidated Framework for Implementation Research. (2022a). *Constructs—Qualitative codebook guidelines*. <https://cfirguide.org/constructs/>
- Consolidated Framework for Implementation Research. (2022b). *Interview guide tools*. <https://cfirguide.org/tools/>

- Crowe, S., Cresswell, K., Robertson, A., Huby, G., Avery, A., & Sheikh, A. (2011). The case study approach. *BMC Medical Research Methodology*, 11(1), 100. doi:10.1186/1471-2288-11-100
- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 50. doi:10.1186/1748-5908-4-50
- Danhieux, K., Martens, M., Colman, E., Wouters, E., Remmen, R., van Olmen, J., & Anthierens, S. (2021). What makes integration of chronic care so difficult? A macro-level analysis of barriers and facilitators in Belgium. *International Journal of Integrated Care*, 21(4), 8–8. doi:10.5334/ijic.5671
- Deschodt, M., Laurent, G., Cornelissen, L., Yip, O., Zúñiga, F., Denhaerynck, K., Briel, M., Karabegovic, A., & De Geest, S. (2020). Core components and impact of nurse-led integrated care models for home-dwelling older people: A systematic review and meta-analysis. *International Journal of Nursing Studies*, 105, 103552. doi:10.1016/j.ijnurstu.2020.103552
- Fakha, A., de Boer, B., van Achterberg, T., Hamers, J., & Verbeek, H. (2022). Fostering the implementation of transitional care innovations for older persons: Prioritizing the influencing key factors using a modified Delphi technique. *BMC Geriatrics*, 22(1), 131. doi:10.1186/s12877-021-02672-2
- Fakha, A., Groenvynck, L., de Boer, B., van Achterberg, T., Hamers, J., & Verbeek, H. (2021). A myriad of factors influencing the implementation of transitional care innovations: A scoping review. *Implementation Science*, 16(1), 21. doi:10.1186/s13012-021-01087-2
- Geerligs, L., Rankin, N. M., Shepherd, H. L., & Butow, P. (2018). Hospital-based interventions: A systematic review of staff-reported barriers and facilitators to implementation processes. *Implementation Science*, 13(1), 36. doi:10.1186/s13012-018-0726-9
- Goderis, G., Colman, E., Irusta, L. A., Van Hecke, A., Pétré, B., Devroey, D., Van Deun, E., Faes, K., Charlier, N., Verhaeghe, N., Remmen, R., Anthierens, S., Sermeus, W., & Macq, J. (2020). Evaluating Large-Scale Integrated Care Projects: The development of a protocol for a mixed methods realist evaluation study in Belgium. *International Journal of Integrated Care*, 20(3), 12. doi:10.5334/ijic.5435
- Goodwin, N. (2016). Understanding integrated care. *International Journal of Integrated Care*, 16(4), 6–6. doi:10.5334/ijic.2530
- Guest, G., Namey, E., & McKenna, K. (2016). How many focus groups are enough? Building an evidence base for nonprobability sample sizes. *Field Methods*, 29(1), 3–22. doi:10.1177/1525822x16639015
- Hamilton, A. B., & Finley, E. P. (2019). Qualitative methods in implementation research: An introduction. *Psychiatry Research*, 280, 112516. doi:10.1016/j.psychres.2019.112516
- Integreo. (2018). *Les Soins Integres*. <https://www.integreo.be/fr/soins-integres/contexte>
- Karali, E., Angeli, F., Sidhu, J. S., & Volberda, H. (2018). Understanding healthcare innovation through a dynamic capabilities lens. In: Ewan F (Ed.) *Healthcare entrepreneurship*. Routledge. pp. 108–143.
- Lee, J. Y., Yang, Y. S., & Cho, E. (2022). Transitional care from hospital to home for frail older adults: A systematic review and meta-analysis. *Geriatric Nursing*, 43, 64–76. doi:10.1016/j.gerinurse.2021.11.003
- Lengnick-Hall, R., Willging, C. E., Hurlburt, M. S., & Aarons, G. A. (2020). Incorporators, early investors, and learners: A longitudinal study of organizational adaptation during EBP implementation and sustainment. *Implementation Science*, 15, 74. doi:10.1186/s13012-020-01031-w
- Ling, T., Brereton, L., Conklin, A., Newbould, J., & Roland, M. (2012). Barriers and facilitators to integrating care: Experiences from the English Integrated Care Pilots. *International Journal of Integrated Care*, 12, e129–e129. doi:10.5334/ijic.982
- Lutz, B. J., Reimold, A. E., Coleman, S. W., Guzik, A. K., Russell, L. P., Radman, M. D., Johnson, A. M., Duncan, P. W., Bushnell, C. D., Rosamond, W. D., & Gesell, S. B. (2020). Implementation of a transitional care model for stroke: Perspectives from frontline clinicians, administrators, and COMPASS-TC implementation staff. *Gerontologist*, 60(6), 1071–1084. doi:10.1093/geront/gnaa029
- Mallidou, A. A., Cummings, G. G., Ginsburg, L. R., Chuang, Y. -T., Kang, S., Norton, P. G., & Estabrooks, C. A. (2011). Staff, space, and time as dimensions of organizational slack: A psychometric assessment. *Health Care Management Review*, 36(3), 252–264. doi:10.1097/HMR.0b013e318208ccf8
- Maruthappu, M., Hasan, A., & Zeltner, T. (2015). Enablers and barriers in implementing integrated care. *Health Systems and Reform*, 1(4), 250–256. doi:10.1080/23288604.2015.1077301
- May, C. R., Johnson, M., & Finch, T. (2016). Implementation, context and complexity. *Implementation Science*, 11(1), 141. doi:10.1186/s13012-016-0506-3
- Michie, S., Richardson, M., Johnston, M., Abraham, C., Francis, J., Hardeman, W., Eccles, M. P., Cane, J., & Wood, C. E. (2013). The behavior change technique taxonomy (v1) of 93 hierarchically clustered techniques: Building an international consensus for the reporting of behavior change interventions. *Annals of Behavioral Medicine*, 46(1), 81–95. doi:10.1007/s12160-013-9486-6
- Michie, S., van Stralen, M. M., & West, R. (2011). The behaviour change wheel: A new method for characterising and designing behaviour change interventions. *Implementation Science*, 6(1), 42. doi:10.1186/1748-5908-6-42
- Naylor, M. D., Bowles, K. H., McCauley, K. M., Maccoy, M. C., Maislin, G., Pauly, M. V., & Krakauer, R. (2013). High-value transitional care: Translation of research into practice. *Journal of Evaluation in Clinical Practice*, 19(5), 727–733. doi:10.1111/j.1365-2753.2011.01659.x
- Palinkas, L. A., Horwitz, S. M., Green, C. A., Wisdom, J. P., Duan, N., & Hoagwood, K. (2015). Purposeful sampling for qualitative data collection and analysis in mixed method implementation research. *Administration and Policy in Mental Health*, 42(5), 533–544. doi:10.1007/s10488-013-0528-y
- Palladino, R., Pennino, F., Finbarr, M., Millett, C., & Triassi, M. (2019). Multimorbidity and health outcomes in older adults in ten European health systems, 2006–2015. *Health Affairs (Millwood)*, 38(4), 613–623. doi:10.1377/hlthaff.2018.05273
- Powell, B. J., Fernandez, M. E., Williams, N. J., Aarons, G. A., Beidas, R. S., Lewis, C. C., McHugh, S. M., & Weiner, B. J. (2019). Enhancing the impact of implementation strategies in healthcare: A research agenda [Perspective]. *Frontiers in Public Health*, 7. doi:10.3389/fpubh.2019.00003
- Powell, B. J., Waltz, T. J., Chinman, M. J., Damschroder, L. J., Smith, J. L., Mattheiu, M. M., Proctor, E. K., & Kirchner, J. E.

- (2015). A refined compilation of implementation strategies: Results from the Expert Recommendations for Implementing Change (ERIC) project. *Implementation Science*, 10(1), 21. doi:10.1186/s13012-015-0209-1
- Proctor, E., Silmere, H., Raghavan, R., Hovmand, P., Aarons, G., Bunger, A., Griffey, R., & Hensley, M. (2011). Outcomes for implementation research: Conceptual distinctions, measurement challenges, and research agenda. *Administration and Policy in Mental Health*, 38(2), 65–76. doi:10.1007/s10488-010-0319-7
- Proctor, E. K., Powell, B. J., & McMillen, J. C. (2013). Implementation strategies: Recommendations for specifying and reporting. *Implementation Science*, 8(1), 139. doi:10.1186/1748-5908-8-139
- Sadler, E., Potterton, V., Anderson, R., Khadjesari, Z., Sheehan, K., Butt, F., Sevdalis, N., & Sandall, J. (2019). Service user, carer and provider perspectives on integrated care for older people with frailty, and factors perceived to facilitate and hinder implementation: A systematic review and narrative synthesis. *PLoS One*, 14(5), e0216488. doi:10.1371/journal.pone.0216488
- Schunk, D. H., & DiBenedetto, M. K. (2020). Motivation and social cognitive theory. *Contemporary Educational Psychology*, 60, 101832. doi:10.1016/j.cedpsych.2019.101832
- Scott, A. M., Li, J., Oyewole-Eletu, S., Nguyen, H. Q., Gass, B., Hirschman, K. B., Mitchell, S., Hudson, S. M., & Williams, M. V. (2017). Understanding facilitators and barriers to care transitions: Insights from project ACHIEVE site visits. *The Joint Commission Journal on Quality and Patient Safety*, 43(9), 433–447. doi:10.1016/j.jcjq.2017.02.012
- Stadnick, N. A., Sadler, E., Sandall, J., Turienzo, C. F., Bennett, I. M., Borkan, J., Oladeji, B., Gureje, O., Aarons, G. A., & Sklar, M. (2019). Comparative case studies in integrated care implementation from across the globe: A quest for action. *BMC Health Services Research*, 19(1), 899. doi:10.1186/s12913-019-4661-5
- Stake, R. E. (1995). *The art of case study research*. Sage
- Threapleton, D. E., Chung, R. Y., Wong, S. Y. S., Wong, E., Chau, P., Woo, J., Chung, V. C. H., & Yeoh, E. K. (2017). Integrated care for older populations and its implementation facilitators and barriers: A rapid scoping review. *International Journal for Quality in Health Care*, 29(3), 327–334. doi:10.1093/intqhc/mzx041
- Toles, M., Frerichs, A., & Leeman, J. (2021). Implementing transitional care in skilled nursing facilities: Evaluation of a learning collaborative. *Geriatric Nursing*, 42(4), 863–868. doi:10.1016/j.gerinurse.2021.04.010
- WHO. (2016). *Integrated care models: An overview (Health Services Delivery Programme, Division of Health Systems and Public Health), Issue*. <https://www.euro.who.int/en/health-topics/Health-systems/health-services-delivery/publications/2016/integrated-care-models-an-overview-2016>
- Winter, M. D. (2020). Reshaping health care governance using pilot projects as public policy implementation instruments. *International Review of Public Policy*, 2, 3. doi:10.4000/irpp.1422
- Yin, R. K. (2009). *Case study research design and methods* (4th ed.). Sage.
- Zorgzaam Leuven. (2018). *Actieplan*. <https://www.zorgzaamleuven.be/actieplan>