

BMJ Open What is known about the role of external facilitators during the implementation of complex interventions in healthcare settings? A scoping review

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ABSTRACT

Objective To synthesise current knowledge about the role of external facilitators as an individual role during the implementation of complex interventions in healthcare settings.

Design A scoping review was conducted. We reviewed original studies (between 2000 and 2023) about implementing an evidence-based complex intervention in a healthcare setting using external facilitators to support the implementation process. An information specialist used the following databases for the search strategy: MEDLINE, CINAHL, APA PsycINFO, Academic Search Complete, EMBASE (Scopus), Business Source Complete and SocINDEX.

Results 36 reports were included for analysis, including 34 different complex interventions. We performed a mixed thematic analysis to synthesise the data. We identified two primary external facilitator roles: lead facilitator and process expert facilitator. Process expert external facilitators have specific responsibilities according to their role and expertise in supporting three main processes: clinical, change management and knowledge/research management.

Conclusions Future research should study processes supported by external facilitators and their relationship with facilitation strategies and implementation outcomes. Future systematic or realist reviews may also focus on outcomes and the effectiveness of external facilitation.

INTRODUCTION

Complex interventions (CIs) involve several interacting components, multiple participants and complex behaviours and are sensitive to the local context.¹ CIs can also lead to numerous and variable outcomes, and the causal link between intervention and outcome is not readily apparent.^{1–4} Many interventions in healthcare settings are considered complex.¹ As CIs are social, context-sensitive, dynamic and successful implementation require the capability of key actors to recreate these social dynamics in their setting, adapt

STRENGTHS AND LIMITATIONS OF THIS STUDY

- ⇒ We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses Extension for Scoping Reviews standards as a checklist to report our study.
- ⇒ We performed a thematic analysis approach.
- ⇒ No formal assessment of study quality.
- ⇒ No study protocol registration.

the intervention and identify the key components for the intervention to be successful in their context.⁵

Facilitation is an active ingredient for implementing evidence-based CIs into practice.⁶ As a process, facilitation is a set of strategies and actions supporting individuals and teams to adopt an innovation in a context of need for improvement.^{7 8} Healthcare facilitation might contribute to implementation outcomes through various components, such as:

- (1) engagement of practitioners through priority and goal setting, (2) clarifying roles and responsibilities, (3) coalition-building across leaders and champions to help build organisational capacity for the effective innovation, (4) continuous problem-solving, strategic thinking and adaptation and (5) integration of innovation and facilitation components into the organisation and letting sites lead the implementation. (Kilbourne, 4).⁹

As a specific role, a facilitator enables stakeholders to implement change in their practice.^{7 10 11} According to the Consolidated Framework for Implementation Research, implementation facilitators are ‘individuals with subject matter expertise who assist,

coach or support implementation'.¹² Facilitators can be internal or external to the organisation, or a combination of both. Focusing on helping individuals and groups to improve the quality of care, external facilitators take on an 'outsider' role in adding a new perspective and questioning organisation rules and policies, as well as daily routines.¹³ Using multiple strategies, external facilitators are implementation experts, and their specialised training provides guidance and interactive problem-solving to the individuals, teams and agencies in the change-making.^{12 14 15}

A scoping review on the facilitation roles and characteristics associated with research use by healthcare professionals highlighted that external facilitators are essential in 'spanning' the boundaries between systems, translating knowledge and helping build relationships.¹⁶ Some reviews explored the roles of facilitators regarding practice facilitation and provided a detailed description of their competencies, strategies and activities.^{7 8 16 17} However, we still need to characterise the role of external facilitators in the context of CI implementation, as well as the processes/set of actions they support. This study aimed to synthesise current knowledge about the role of external facilitators during the implementation of CIs in healthcare settings.

METHODS

Research design

We conducted a scoping review using the methodology described by Arksey and O'Malley and adapted by Levac *et al.*^{18 19} This scoping review methodology allows to query the literature for a broad research question. We used the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) Extension for Scoping Reviews standards as a checklist to report all relevant information.²⁰ This scoping review was conducted in five stages.

Stage 1: identifying the research questions

Our primary research question was: What is known about the role of external facilitators in implementing CIs in healthcare settings? Subresearch questions were as follows:

- ▶ What are the population target and the goal of CIs using an external facilitator as an implementation strategy?
- ▶ What are the processes supported by external facilitators when implementing CIs?

Stage 2: identifying relevant studies

Search strategy

We searched the following databases: MEDLINE, CINAHL, APA PsycINFO, Academic Search Complete, EMBASE (Scopus), Business Source Complete and SocINDEX for articles published between 2000 and 2023, with the following three concepts: facilitation, CI and implementation. As an example, we used the following synonyms for the concept of facilitation: facilitator,

'knowledge broker', 'practice enhancement assistant', 'change agent', coach and 'social facilitation'. The search strategies, developed in consultation with an experienced medical librarian and adapted to each database, may be found in online supplemental appendix 1.

Stage 3: study selection process

Eligibility criteria

We selected studies if they were written in English or French and pertained to the implementation of an evidence-based CI in a healthcare setting supported by an external facilitator. Specifically, we referred to an implementation process as a 'deliberate effort to increase the impact and uptake of successfully tested innovation' (Skivington, p. 26). We considered that a facilitator was external when at least one actor from outside the organisation was involved in facilitating the CI implementation. The definition of CI was based on the guidance of the Medical Research Council:

An intervention might be considered complex because of properties of the intervention itself, such as the number of components involved; the range of behaviours targeted; expertise and skills required by those delivering and receiving the intervention; the number of groups, settings, or levels targeted; or the permitted level of flexibility of the intervention or its components (Skivington, p. 2).

We excluded articles if they were (1) about a quality improvement initiative of a non-evidence-based CI, (2) not in a healthcare setting, (3) a conference abstract and (4) a study protocol not reporting any results or description of the facilitation intervention's development.

We used the Cochrane technology platform Covidence to manage duplicates, as well as the selection process. First, two reviewers (SO and GC) screened titles and abstracts in increments of 200 abstracts to test the clarity of eligibility criteria. A third reviewer, experienced with the scope of the review (AG), resolved any conflicts and discrepancies. This process helped clarify eligibility criteria among reviewers. For instance, authors would often not explicitly mention whether the intervention being implemented was complex, making it difficult for reviewers to evaluate this criterion. We concluded that the social nature of the intervention was the characteristic pertaining to complexity most easily identifiable in the abstract, that is, whether the intervention consists of multiple social behaviours (eg, care management and collaborative care) and requires the interaction of at least two actors. Additionally, few abstracts distinguish between external and internal facilitators. After screening the first 200 abstracts, we decided to include any abstract/record reporting the results of an implementation process or the development of an implementation support/facilitation intervention. Subsequently, SO and GC screened full texts for eligibility, and AG resolved any conflicts. A senior researcher (CH) was also consulted during the selection process to clarify the scope of the review.

Stage 4: charting the data

Three authors (SO, AG and CH) created and agreed on a data extraction form based on the Template for Intervention Description and Replication checklist.²¹ This form included:

- ▶ Description of the study (author, year, country, design and objective).
- ▶ Description of the CI (name, aim, target population and providers).
- ▶ Description of the role of external facilitators (why, for who, by whom, when and activities).

Two authors (SO and GC) extracted the variables from each included article, and two additional authors (AD and ML) validated the extracted data. A fifth author (AG) resolved disagreements. We excluded articles lacking details about the role of external facilitators or a CI description.

Stage 5: collating, summarising and reporting the results

We conducted a thematic analysis based on Braun and Clarke's methodology to synthesise data related to the role of external facilitators with the NVivo software.²² The Interactive Process Framework for the Implementation of Complex Interventions,²³ an adaptation of the Interactive Systems Framework,²⁴ was used to highlight processes supported by external facilitators. According to the Interactive Process Framework, three processes are in interaction when implementing a CI: knowledge (synthesis and transformation), practice support (team and individual) and practice delivery.²³ The first step of the analysis was done by two authors (AG and AD) as they got acquainted with the type of information available regarding the description of facilitation and of the role of the external facilitator (Braun and Clarke, 2006). The second step was to explore patterns with an inductive and a deductive approach by creating themes and charting data in a table and schema (eg, type of facilitation process and actors, the link between CI and type of facilitation).^{22 25} Deductive themes were initially created according to the three processes described in the Interactive Process Framework. One author with experience in organisational change management (AD) conducted the second step of the thematic analysis and findings were discussed and validated with the first author (AG).

To regroup and describe the type of study design and characteristics of the CIs, we used the approach described by Arksey and O'Malley¹⁸ akin to a narrative review approach.²⁶ A summary of each study was also included in an Excel table.^{18 26}

Patient and public involvement

None

RESULTS

We identified 4752 unique records (abstracts) for which 248 reports (full-text journal articles) were assessed for eligibility. We excluded 191 reports and reviewed

40 reports for data extraction eligibility. Ultimately, we included 36 reports for final analysis. Results are summarised in [figure 1](#) according to the PRISMA 2020 statement guideline.²⁷

Study characteristics

Online supplemental appendix 1, table 1 summarises the characteristics of each included study and their CIs. The included articles were published between 2008 and 2023. Most studies were conducted in the UK (n=11), the USA (n=9) and Canada (n=7). Overall, we identified three study designs: (1) developmental study (n=5), that is, describing the methods used to develop the facilitation intervention to support stakeholders implementing a CI in their context; (2) process evaluation study (n=27), sometimes embedded in a randomised controlled trial (n=15) and conducted using qualitative research (n=16) or mixed methods (n=11) and (3) outcome evaluation study of a facilitation intervention (n=2). Two studies concerned process and outcome evaluations.^{28 29}

CIs' goals and target populations

We identified 34 CIs and classified them into two categories: (1) healthcare management interventions designed to improve the health of individuals living with specific health conditions/diseases or their caregivers (25/34) and (2) public health programmes designed to prevent disease or promote health among groups of populations at risk (6/31).

Healthcare management interventions targeted individual healthcare needs (eg, symptoms management, physical and occupational rehabilitation, and recovery) or the care trajectory/pathway (detection, assessment, care planning and referring) of people with specific health conditions: mental disorders such as depression, alcohol use disorders and primary psychosis^{30–36}; stroke^{37–43}; dementia^{44–46}; cancer^{28 29}; end of life or palliative care^{47–50}; multiple chronic diseases^{51 52}; asthma⁵³; obesity²³; long-term musculoskeletal pain⁵⁴; lupus⁵⁵ and osteoarthritis.⁵⁶

Public health programmes were specifically designed to prevent suicide among adults,⁵⁷ and substance use among adolescents,⁵⁸ as well as to promote physical activity among inactive patients,⁵⁹ positive parenting skills among families living in disadvantaged communities,⁶⁰ health for pregnant woman and their significant other⁶¹ and well-being among older adults.⁶²

The role of external facilitators

Online supplemental appendix 1, table 2 summarises the role of the external facilitators for each CI. We identified two primary external facilitator roles: the lead facilitator and the process expert facilitator.

The lead facilitator

Lead external facilitators were often responsible for managing relationships, recruiting organisations, training and supporting external facilitators who worked closely with internal facilitators and CI providers. Indeed, 18 CIs

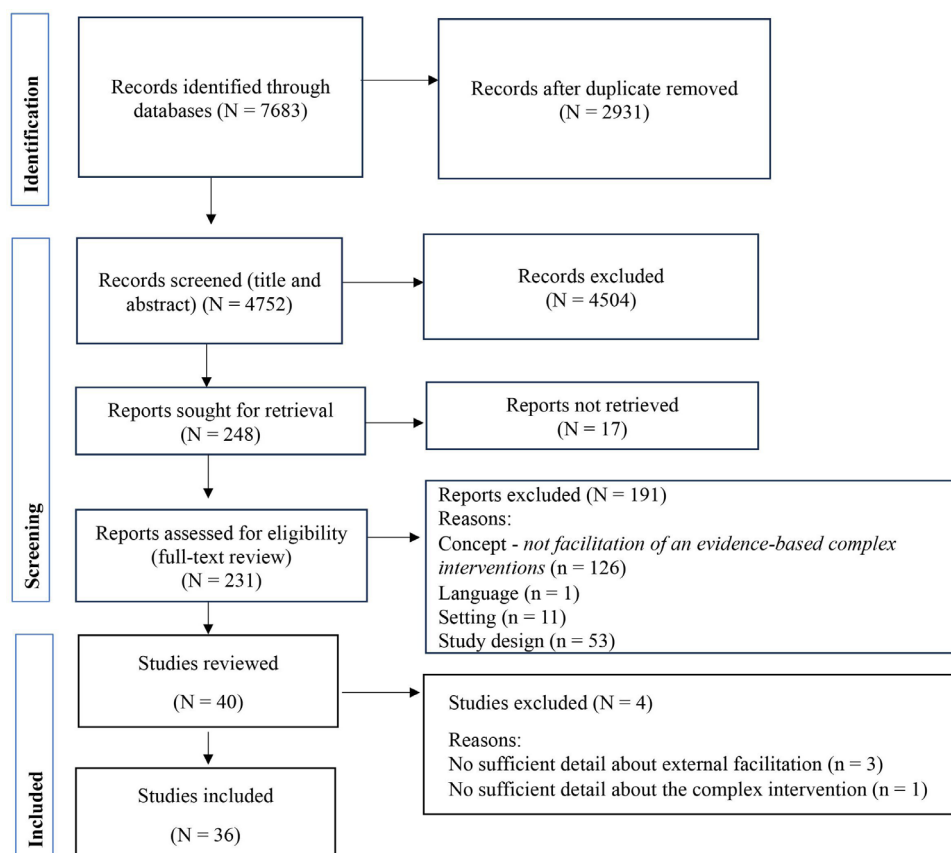


Figure 1 PRISMA flow chart. PRISMA, Preferred Reporting Items for Systematic Reviews and Meta-Analyses.

were implemented using the support of both internal and external facilitators. Research teams were often the external lead facilitators and the ‘conductor’ of the external facilitation process.^{23 28 29 33 34 36–38 41 42 44 45 47 49–56 59 61 62} For instance, in a study on the implementation of an eHealth intervention for individuals with dementia:

Four and a half full-time equivalent researchers worked part-time on the implementation of the partner in Balance project, recruiting organisations, providing technical and implementation support, managing relationships with organisations and the technology partner, planning and carrying out coach training and developing new content modules. (Christie, 5).

In the included studies, the lead facilitator often had an essential role in engaging key partners and stakeholders ethically and strategically. For instance, they were responsible for reaching agreements with managers and decision-makers. In a study on the support of managers in implementing a psychosocial intervention for dementia care, an organisation agreement was signed ‘by senior management to indicate they agree with providing the resources for the IFs (internal facilitators) to fulfil their role, including time’ (Kelley, p.3).

‘Process expert’ facilitators

In the included studies, ‘process expert’ facilitators, such as research staff, clinical champions, external change

agents or advisory groups, had specific responsibilities according to their role and expertise in supporting three processes of the CI implementation: clinical care processes, change management processes and knowledge/research management processes.

External facilitators supported CI providers in adopting evidence-based behaviours/activities related to the CI’s main goals and target population. Many studies used expert clinicians, such as ‘clinical champions’, to play the role of external facilitator to support the CI integration into the actual clinical care processes.^{31 32 35 39–43 47 48 54 54 56 59 62} Specifically, expert clinicians provided training and coaching to improve the competency and skills of CI providers before and during the implementation. In a study to evaluate and support the implementation fidelity of a community exercise intervention, the authors described the role of the physical therapists as facilitators as follows:

Two physical therapists with FAME (fitness and mobility exercise) experience facilitated a workshop which consisted of 3 hours of lectures, 3 hours of practical with three people with stroke and 2 hours of discussion and evaluation. (...) all fitness instructors who regularly delivered the FAME programme (...) participated in the workplace audit and coaching process [...] facilitated by one of the physical therapy instructors who had delivered the day-long workshop (Bird, p. 3).

External facilitators often supported CI providers and the implementation team in planning, managing and monitoring the organisational change process according to the best practices in change management. In a study on implementing an evidence-based, person-centred approach to stroke rehabilitation, the authors detailed the role of implementation facilitators who:

(...) met face-to-face with the clinical teams on a bi-weekly basis to support site-specific implementation and sustainability of CO-OP (the cognitive orientation to daily occupational performance approach). Teams at each site were asked to set implementation goals that made sense within their context, and the implementation facilitator used guided discovery to help teams develop, implement and check plans. (Hunt, p. 203).

External facilitators supporting the change process were often researchers or staff trained in quality improvement techniques. For instance, in a study to evaluate the implementation of a facilitation intervention to improve the care of patients with transient ischaemic attack, the 'EF (external facilitation) was provided by the PREVENT nurse trained in Lean Six Sigma methodology and quality management' (Damush, p. 324).

Finally, external facilitators were mostly research team members assisted by trained staff to support knowledge/research management processes. These external facilitators often led activities related to CI dissemination and the evaluation of the facilitation intervention. The external facilitators helped CI providers or local facilitators recruit participants, collect and analyse data. For example, in the context of a European suicide prevention programme evaluation, the evaluation process team trained local researchers to conduct interviews and focus groups in the participant's 'own language'.⁵⁷ In one study, a business model of the CI was developed in collaboration with a Knowledge Transfer office to ensure the sustainability of the CI implementation.⁴⁵

DISCUSSION

Our review is the first to describe the role of external facilitators according to the processes they supported while implementing an evidence-based CI. In previous literature reviews on facilitation and implementation strategies, authors summarised the evidence by listing the various strategies and activities used by facilitators and implementation teams.^{7 8 15 16 63} Our review goes further by distinguishing the lead facilitator role (relationship-building, project management) from the process expert facilitator (clinical care, change management, knowledge/research).

The 'lead facilitator' role was implicitly described in all retrieved studies, even though they play an essential role in the research project management and in supporting process expert facilitators. The role of the lead external facilitator in implementation research appears to be

similar to that of a 'project manager'.⁶⁴ In their study on the role of external facilitators in supporting the implementation of a change process in primary care settings, Lessard *et al* highlighted that project management was one field of expertise of external facilitators.⁵² Furthermore, the lead external facilitator is also essential in developing and sustaining partnerships. Indeed, engaging stakeholders and developing relationships are core activities in implementation research,^{12 65} programme evaluation⁶⁶ and a key role of project managers.^{64 67} Building a coalition across leaders and champions is also described as a component of healthcare facilitation.⁹ All included articles were conducted in the context of a research project, explaining why lead facilitators were primarily researchers. Considering the importance of relational/partnership-building for the success of an implementation study and CI sustainability, there is a need to develop knowledge regarding best partnership practices and to promote these best practices among implementation researchers.

In coherence with the Interactive Process Framework for the Implementation of Complex Intervention,²³ expert facilitators may contribute to managing and developing knowledge using research activities through the research process and to support adoption of best practices using clinical supervision and quality improvement activities through clinical and change management processes. Indeed, research staff, clinical champions/experts and change agents are three actors frequently involved in an implementation team.¹² Those results are similar to the scoping review of Cranley *et al* on the role of the facilitator in the context of practice facilitation.¹⁶ However, research facilitators and clinical facilitators were identified as an internal facilitator role.¹⁶ In the context of an implementation study, research and clinical expertise are specific to CIs characteristics and are not necessarily available in the implementation context for the study duration. In the articles included in this scoping review, external facilitators worked closely with internal facilitators to support and spread expertise among individuals in the implementation context. Ensuring the scaling up and sustainability of CIs requires various and sometimes specialised expertise, highlighting the relevance of developing strategies for helping healthcare stakeholders to access the necessary expertise to improve care or implement CIs. These strategies should aim to continuously support healthcare providers and managers through knowledge/research management, change management and clinical support/supervision processes concerning evidence-based CIs and the needs of the target population.

From a practical perspective, the results of our review can help healthcare organisations or clinical teams think about the human resources needed to manage a CI implementation project successfully: (1) a lead facilitator (an expert in the CI and implementation processes) for managing the initiative, building relationships among a variety of partners, and guiding external and internal facilitators; (2) clinical experts or clinical supervisors

responsible for facilitating the integration of best clinical practices into the actual clinical process by offering training and coaching to clinical providers and sometimes patients; (3) change management experts or change agents for the planning and monitoring of the change and the coaching of the implementation team and (4) knowledge management experts or research staff for managing the research process and developing scientific knowledge for CI sustainability. Indeed, our results show that members of the research team sometimes facilitated the research process itself and the organisational change process. Depending on their expertise, the research team sometimes played the role of clinical supervisors as well. The external facilitation model or team configuration will depend on the partners' needs and evaluation goals.

Limitations

Some limitations of our review need to be highlighted. First, there is a possibility that we have missed some relevant articles due to the lack of definition standard for facilitation and CI, allowing a bias of interpretation for study selection. To minimise this bias, we selected data progressively and had numerous discussions to ensure all team members involved in the selection process shared the same understanding of these concepts. We also developed a search strategy with an experienced medical librarian adapted for different databases, enabling an exhaustive and comprehensive literature review. Second, we did not include grey literature, which resulted in an over-representation of researchers as external facilitators while including public health agency reports on CI implementation would have emphasised professional backgrounds or positions other than academic researchers as lead external facilitators. Third, most included studies described activities conducted by external and internal facilitators, but the descriptions provided strongly differ among articles. This heterogeneity in the level of information regarding facilitation strategies and the role of external facilitation created a challenge in analysing the evidence.

Recommendation for facilitation strategies reporting

The reporting of the role of external facilitators was often included within the text of the included articles (eg, in the background, method and results sections) but displayed no consistency. To standardise the reporting of facilitation strategies when disseminating the results of implementation studies, it might be relevant that authors document strategies and activities of external facilitators according to the facilitated processes or the set of actions to facilitate: care delivery (eg, clinical supervision, training and educational material), change management (eg, needs assessment, audit and feedback, plan-do-study-act cycles) and knowledge management process (eg, research training, data collection and analysis support, dissemination strategies). Guidelines for naming, defining and operationalising implementation strategies provided by Proctor *et al* and Powell *et al* may help to improve the clarity, relevance

and comprehensiveness of implementation strategies.^{68 69} Using these guidelines to describe facilitation/implementation strategies according to the supported processes may contribute to developing knowledge regarding the operationalisation of CI in healthcare settings. Authors should also explicitly present the governance structure and the role of the lead facilitator so knowledge of relationship/partnership-building best practices in the field of implementation science could be improved.

CONCLUSION

This scoping review provides knowledge about the role of external facilitators during the implementation of a CI from a systemic perspective by focusing on processes supported by facilitators. However, those processes, characterised by organisational human behaviours, need to be better understood to more easily translate research evidence and CI into actual practice. Future research should explore the link between processes supported by external facilitators, facilitation strategies/activities and implementation outcomes. Future systematic or realist reviews may also focus on outcomes and the effectiveness of external facilitation. A better understanding of the mechanisms of external facilitation and its impact will contribute to building a learning healthcare system and improve the integration of evidence-based intervention into practices.

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