

A How-To Guide for Planning Hospital-to-Home Care Transition Interventions: Findings and Implications of a Realist Synthesis

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OBJECTIVES

- People who are discharged from hospital to home are at increased risk of numerous adverse outcomes¹:
 - Functional decline and poor self-rated health
 - Poor continuity of care and medication errors
 - Re-hospitalization, early institutionalization or death
- Existing meta-analytic syntheses on efficacy of interventions to prevent these outcomes have been largely inconclusive.
 - They report that heterogeneity in target populations, activities and contexts of care transition interventions limit conclusions about which interventions consistently work.^{2,3,4}
- The realist synthesis approach leverages this heterogeneity in care transition intervention activities, target populations and contexts to yield actionable results.⁵

This study aimed to answer: Why do different care transitions work, for whom and in what contexts?

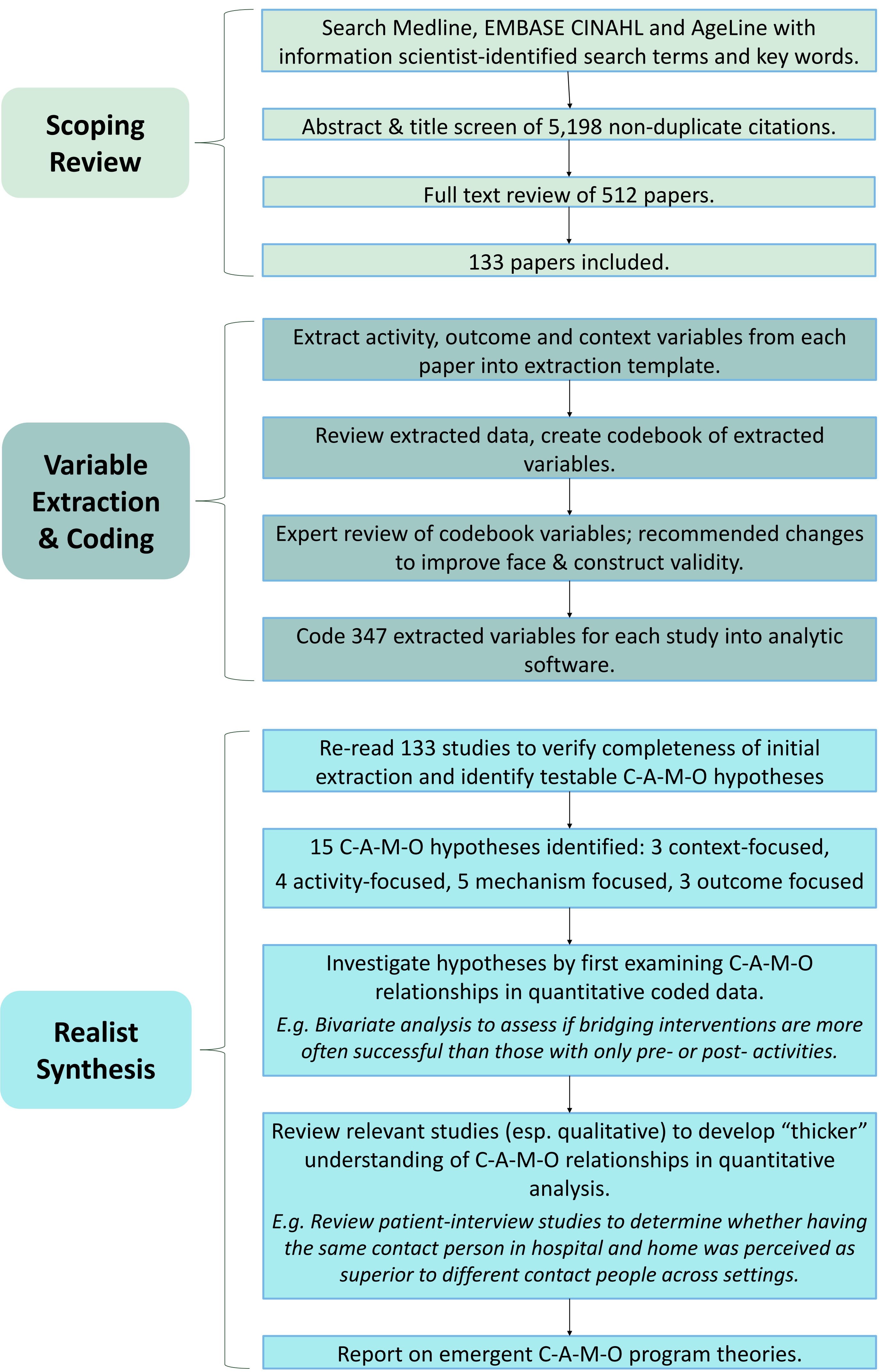
THEORY

- Realist synthesis is a systematic, theory-driven, interpretive technique that uncovers relationships between contexts, activities, mechanisms and outcomes in complex interventions.⁵
- We hypothesized that that different care transition activities would induce patient outcomes via mechanisms that varied across home and hospital contexts.
- The theoretical constructs in Table 1 were used to guide the extraction and synthesis of data from a scoping literature review.

Table 1: Realist Synthesis Constructs Examined in Care Transition Intervention Studies

Realist Construct	Definition
Context	Organizational or environmental back-drop of care transition intervention that triggers or modifies activities' actions. ⁶ <i>E.g. academic hospital; financial incentives for improved care transition outcomes.</i>
Activities	Processes, tools, events, technology and actions that are an intentional part of program implementation. ⁷ <i>E.g. creation of a personalized care plan; medication reconciliation.</i>
Mechanism	Underlying entities, processes or structures which operate in particular contexts to generate outcomes of interest. ⁸ <i>E.g. consistent provider pre- and post-discharge fosters relationship with patient; intensity and repetition of activities increases their impact on outcomes.</i>
Outcomes	Either intended or unintended results of intervention activities; can be proximal, intermediate or final. ⁸ <i>E.g. changes in program participants' health care utilization, health status or knowledge.</i>

METHODS



RESULTS

- Of included studies, 84% (n = 111) compared individual-level outcomes in control versus intervention groups.
- Of these comparison studies, **59%** (n = 65) and **26%** (n = 26) achieved **success** on some or all measured outcomes, respectively.
- 47%** (n = 63) of studies reported intervention activities and/or contextual factors that **facilitated the intervention's success** (Table 2).
- 50%** (n = 66) of studies reported intervention activities and/or contextual factors that were **barriers to intervention success** (Table 3).

RESULTS

Table 2: Facilitators of Care Transition Intervention Success

Facilitators to Intervention Success Identified by Study Authors	% studies reporting (n = 133)
Intervention characteristics and activities <ul style="list-style-type: none">Strong program theory/guiding framework (n = 8).Formation of trusting relationships between patients and intervention staff (n = 5).	28
Good integration and collaboration between providers <ul style="list-style-type: none">Formalized partnership between hospital and community care services (n = 9).Increased provider access to/inter-provider linkage of e-health files (n = 4).	14
Strong provider buy-in <ul style="list-style-type: none">Favourable attitudes of in-house staff towards intervention (n = 5).Minimal additional task time added to existing roles of providers (n = 4).	11
Low cost of intervention to funding organization and patients	8

Table 3: Barriers to Care Transition Intervention Success

Barriers to Intervention Success Identified by Study Authors	% studies reporting (n = 133)
Unexpected program implementation issues <ul style="list-style-type: none">Inadequate intervention staff to conduct intervention activities (n = 9).	19
Prohibitive cost of intervention to funding organization	14
Poor integration and collaboration between providers <ul style="list-style-type: none">Intervention staff inadequately integrated with regular care staff (n = 13).Insufficient communication between intervention staff & community providers (n = 5).	13
Lack of provider buy-in <ul style="list-style-type: none">Intervention added too much to provider workload (n = 7).No financial incentives for providers to conduct intervention activities (n = 4).	13
Intervention characteristics and activities <ul style="list-style-type: none">Lack of cultural acceptability of intervention for patients (n = 2).Duration of post-discharge intervention care period too short (n = 2).	7

IMPLICATIONS

- Only ¼ hospital-to-home care transition interventions achieved significant improvements in all of the outcomes they measured.
- This study identifies key mechanisms, activities and contextual factors that affect whether care transition interventions are successful.
- Knowledge of these barriers and facilitators can be applied to future care transition interventions to improve their likelihood of success.

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REFERENCES

- Kim CS & Flanders SA: *Annals of Internal Medicine* 2013, 158(5 Pt 1):ITC3-1.
- Hansen LO et al: *Annals of Internal Medicine* 2011, 155(8):520-528.
- Hesselink G et al: *Annals of Internal Medicine* 2012, 157(6):417-428.
- Rennke S et al: *Annals of Internal Medicine* 2013, 158(5 Part 2):433-440.
- Pawson R et al: *Social Science & Medicine* 2014, 114:129-137.
- W.K. Kellogg Foundation: *Logic Model Development Guide*. Chapters 2 and 3, 2004.
- Astbury B & Leeuw FL: *American Journal of Evaluation* 2010, 31(3):363-381.
- Jagosh J et al: *The Milbank Quarterly* 2012, 90(2):311-346.

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