



Taking action to improve health for all

Continuity of Care

How to go forward?



Continuity of Care

with Chronic Patients

Fragmentation of care

Moving to another city

Long-term care processes have more variation

Hi George! How have you been?



New primary caregiver

Primary caregiver retires

New primary

caregiver

Continuity is often framed as...

An ongoing care relationship between the patient and their caregiver(s)



The 3 Dimensions of Continuity (Haggerty et al., 2003)



Relational continuity – ongoing relationships



Informational continuity – using patient data to personalise care



Management continuity - consistent and adapts to changing needs

Haggerty, J. L., Reid, R. J., Freeman, G. K., Starfield, B. H., Adair, C. E., & McKendry, R. (2003). Continuity of care: A multidisciplinary review. *British Medical Journal*, 327(7425), 1219–1221.

3 Considerations on Continuity Measures



Missed Care Ignored

Only counts visits, not care that was delayed or never provided.



Outcomes Not Reflected

High scores don't ensure better, timely, or effective care.



Narrow Focus

Measures only provider consistency, not overall care coordination.



Operationalization of Continuity Has Focused on Relational Continuity

Measure	Focus
COCI (Continuity of Care Index)	Evenness across all providers
UPC (Usual Provider of Care)	Proportion with top provider
SECON (Sequential Continuity of Care Index)	Sequential same-provider visits
HI (Herfindahl Index)	Concentration of visits among different providers

Pollack, C. E., Hussey, P. S., Rudin, R. S., Fox, D. S., Lai, J., & Schneider, E. C. (2016). Measuring Care Continuity. Medical Care. 54(5), e30–e34.



Research Gap

RQ: What factors contribute to the continuity of care in chronic disease management?





Research methods and data

DATASET 1

- Private Nordic healthcare company
- Focus group (N = 7)
- Semi-structured interviews (N = 9)

DATASET 2

- Public healthcare professionals working with older patients
- Focus group (N = 9)

ANALYSES

- Inductive thematic analyses
- Inspired by Gioia et al. (2013)

Gioia, D. A., Corley, K. G., & Hamilton, A. L. (2013). Seeking Qualitative Rigor in Inductive Research: Notes on the Gioia Methodology. Organizational Research Methods, 16(1), 15–31.

Findings

Data Structure

FIGURE 1, DATA STRUCTURE

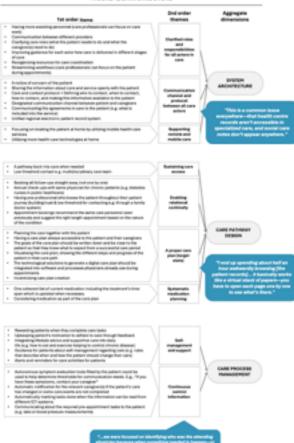




FIGURE 1, DATA STRUCTURE

1st order items

- Having more assisting personnel (care professionals can focus on care work)
- Communication between different providers
- Clarifying care roles (what the patient needs to do and what the caregiver(s) need to do)
- Improving guidance for each actor how care is delivered in different stages
 of care
- · Reorganizing resources for care coordination
- Streamlining workflows (care professionals can focus on the patient during appointments)
- A notice of concern of the patient
- · Sharing the information about care and service openly with the patient
- Care and contact protocol = Defining who to contact, when to contact, how to contact, and making this information available to the patient
- Designated communication channel between patient and caregivers
- Communicating the agreements in care to the patient (e.g. what is included into the service)
- Unified regional electronic patient record system
- Focusing on treating the patient at home by utilizing mobile health care services
- · Utilizing more health care technologies at home

2nd order themes

Clarified roles and responsibilities for all actors in care

Communication channel and protocol between all care actors

> Supporting remote and mobile care

Aggregate dimensions

SYSTEM ARCHITECTURE

"This is a common issue everywhere—that health centre records aren't accessible in specialized care, and social care notes don't appear anywhere."

- A pathway back into care when needed
- · Low threshold contact e.g. multidisciplinary care team
- Booking all follow-ups straight away (not one by one)
- Annual check-ups with same physician for chronic patients (e.g. diabetes nurses in public healthcare)
- Having one professional who knows the patient throughout their patient journey (building trust & low threshold for contacting e.g. through a family doctor system)
- Appointment bookings recommend the same care personnel seen previously and suggest the right length appointment based on the nature of the condition
- · Planning the care together with the patient
- · Having a care plan always accessible to the patient and their caregivers
- The goals of the care plan should be written down and be clear to the patient so that they know what to expect from a successful care period
- Visualising the care plan; showing the different steps and progress of the patient in their care path
- The technological solutions to generate a digital care plan should be integrated into software and processes physicians already use during appointments
- · Incentivizing care plan creation
- One coherent list of current medication including the treatment's time span which is updated when necessary
- Considering medication as part of the care plan

Sustaining care access

Enabling relational continuity

A proper care plan (target state)

Systematic medication planning CARE PATHWAY DESIGN

"I end up spending about half an hour awkwardly browsing [the patient records]... it basically works like a virtual stack of papers—you have to open each page one by one to see what's there."

- Rewarding patients when they complete care tasks
- Upkeeping patient's motivation to adhere to care through feedback
- Integrating lifestyle advice and supportive care into daily life (e.g. how to eat and exercise helping to control chronic disease)
- Guidance for patients about self-management regarding care (e.g. rules that describe when and how the patient should change their care)
- · Alerts and reminders for care activities for patients
- Autonomous symptom evaluation tools filled by the patient could be used to help determine thresholds for communication needs. E.g., "if you have these symptoms, contact your caregiver"
- Automatic notification for the relevant caregiver(s) if the patient's care has changed or some care events are not completed
- Automatically marking tasks done when the information can be read from different ICT-systems
- Communicating about the required pre-appointment tasks to the patient (e.g. labs or blood pressure measurements)

Selfmanagement and support

Continuous control information

CARE PROCESS MANAGEMENT

"...we were focused on identifying who was the attending physician because when something needed to happen—or didn't happen—it was important to know who was responsible."



Findings Continuity of Care Conceptual Model

Research Gap

RQ: What factors contribute to the continuity of care in chronic disease management?

> Managing the patient's personalized ongoing care process

The codification strategy is highlighted in continuity with chronic patients who inevitably face fragmentation

Prioritizing personal, consistent patient-caregiver interactions.

CARE PROCESS MANAGEMENT

RELATIONAL STRATEGY



MODERATION

CODIFICATION STRATEGY

Ensuring standardized, accessible knowledge via robust information systems.

Antecedents:

Platform for service delivery

> Service spesifications

SYSTEM ARCHITECTURE

CARE PATHWAY DESIGN

CONTINUITY

CARE

Outcome:

Ensuring the patient's specific care needs are met



Operationalization of the constructs

Implications for future

- Validate the Conceptual Continuity Model
 - Test the model's relevance across varied healthcare systems beyond Finland.
- Develop metrics for standardized processes and information flow to complement the relational strategy measures.
- Uncover Continuity Mechanisms

 Investigate how the identified system design features produce continuity.



THANK YOU

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Researching healthcare operations and management



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