Universität Basel
Medizinische Fakultät
Departement Public Health

25 Years of Growth
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Nursing Science
Pflegewissenschaft
Universität Basel

Development and implementation of an integrated tran**S**itional care model for children with com**P**lex c**AR**e needs at the Universitäts-**K**inderspita**L** Zurich (KISPI ZH): The SPARKLe-project

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BACKGROUND

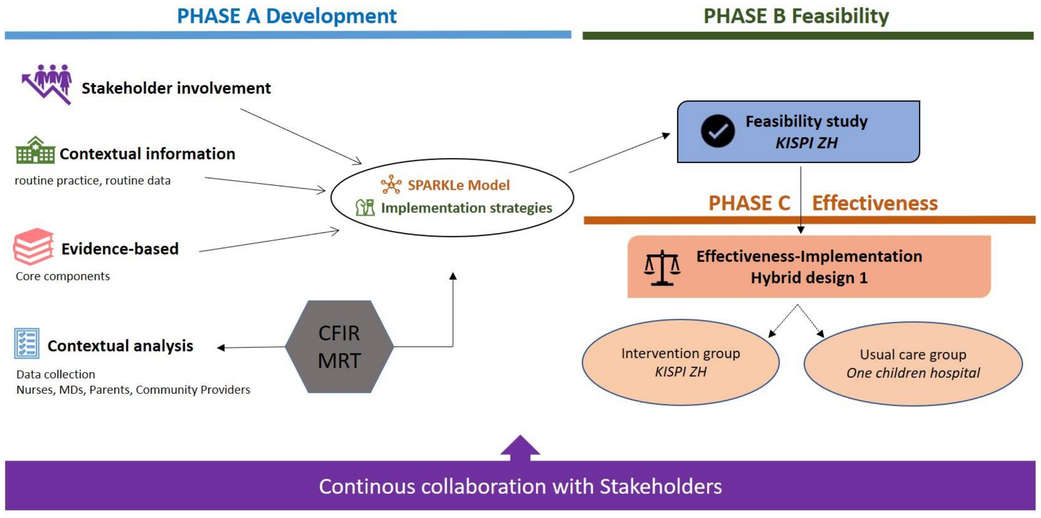
- Internationally, 30-day **readmission rate** for pediatric patients with chronic or complex chronic conditions vary from 5.4% to over 20% across diagnoses.[1]
- Between 2018 and 2024, KISPI ZH has treated 30'011 chronic cases, of whom 15.8% were re-admitted within 30 days post discharge.
- **Children with complex care needs** exhibit multidimensional health & social care needs in the presence of a recognized medical condition or no unifying diagnosis.[2]
- **Fragmented care** & poor communication among providers lead to care gaps & unmet needs.[2]

OBJECTIVES

The SPARKLe-project aim is to develop, implement, and evaluate an **integrated care model for children with complex care needs** to optimize their discharge from KISPI ZH to home, using a systematic methodological approach.

METHODS

Phase A: Development of the SPARKLe care model



SPARKLe: a multiphase project following the MRC framework for complex interventions

Phase B: Assessment of feasibility

Data source & samples

Design
parallel, convergent mixed-methods

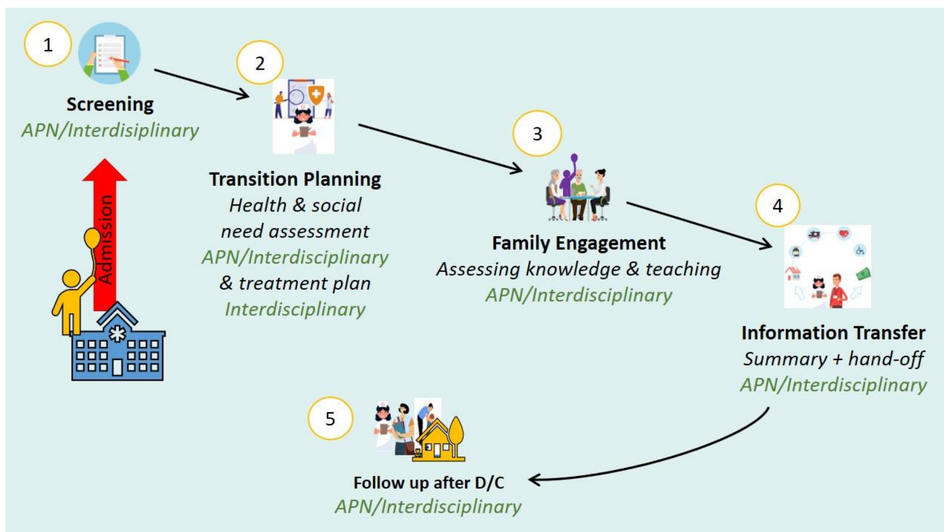
Sample
multi-sample

Outcomes
- Acceptability
- Adoption
- Feasibility
- Fidelity

Data collection
April-July 2024

RESULTS

Phase A: The SPARKLe care model



Phase B: Results of the feasibility study

Acceptability
- (N=6) · high acceptance due to support in processes and overview
- (N=10/12) · need for strengthening assessment expertise & managements commitment
- (N=9/17) · 64% reported that SPARKLe is acceptable

Adoption
- (N=10/12) · positive feedback, intention to use the SPARKLe care model

Feasibility
- (N=6) · high feasibility, need for a clear focus
- (N=10/12) · need for coordination, training, and standard operation procedures
- (N=9/17) · 63% reported feasibility of collaboration

Fidelity
- (N=6)
  - 100 % for model components *screening* and *transition planning*
  - 83.3 % for model component *familiy engagement*
  - 50 % for model component *information transfer*
  - 0 % for model component *follow up after discharge*

LESSONS LEARNED & NEXT STEPS

- The SPARKLe care model
  - supports the **care coordination for children with complex care needs** & enables **collaboration with external healthcare professional**
  - improves **quality of care for families**
- Further adaptations needed: a) **revision of documentation**, b) development of **SOPs**, c) **clarity over roles**
- Phase C, the effectiveness study, is planned 2028

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[1] Berry, Jay G., et al., (2013) Pediatric Readmission Prevalence and Variability Across Hospitals. *JAMA, 309* (4), 372–380
[2] Brenner, M., et al., (2018) Children's Complex Care Needs: A Systematic Concept Analysis. *European Journal of Pediatrics, 177* (9), 1451–1460.

SPARKLe