Two trials at two continents- evaluating the effectiveness of F@ce 2.0: a person-centred and interdisciplinary rehabilitation intervention after stroke supported by technology

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Aim

The aim of this research program was to study the effects of F@ce 2.0 on self-efficacy, perceived performance in activities and participation in everyday life, compared to a control group receiving ordinary rehabilitation.

Compare effectiveness and feasibility of F@ce 2.0 in two contexts:
- Sweden: person-centred, interdisciplinary team + daily SMS
- Uganda: family-centred model + daily SMS and phone follow-ups

Primary outcome: COPM performance & satisfaction

Principles of the F@ce intervention

8 –week intervention ***aiming*** to increase functioning in daily activities for persons living with the consequences of stroke, and participation in everyday life for persons with stroke and their family members.

- a problem-solving strategy (Target-Plan-Perform-Prove)
- COPM is used to formulate three targets (goals) in daily activities
- each activity will be practiced together with the OT and family members
- different strategies will be used, as finding new ways to performance, modifying the environmental demands.
- family members will be informed about target activities and the planned strategies for reaching the targets.

Background & Methods

Stroke is a major non-communicable disease affecting over 10 million people globally each year. Western countries facing a challenge in access to rehabilitation due to demographic development. At the same time, low-income nations have lack of educated healthcare professionals who can provide rehabilitation.

Digital technology can offer opportunities to access and utilize rehabilitation more efficiently
Stroke limits everyday activities and participation globally.
Service contexts differ: Sweden has structured, guideline-driven interdisciplinary rehab; Uganda faces limited access and long distances—families provide most daily support.
Digital, low-cost, person-centred models are needed in both contexts.

Designs & Procedures

Sweden: Pragmatic non-randomised controlled cluster trial; n=100; 7 intervention/5 control teams.
Intervention: team-based rehab integrated with F@ce 2.0; daily SMS goal prompts and evening self-ratings;
web dashboard & ‘red-flag’ alerts for low/no ratings (theoretical design).
Uganda: Randomised controlled trial; n=98; urban & rural; family-centred delivery; daily SMS + scheduled follow-up calls; goal work anchored in COPM; assessments at 8 weeks & 6 months.

Study	Design	n	Delivery model	Follow-up
Sweden	Pragmatic non-randomised controlled cluster	100	Team-based + daily SMS; dashboard & alerts (intended)	Baseline, 8w, 6m
Uganda	Randomised controlled trial (urban & rural)	98	Family-centred + daily SMS + scheduled calls	Baseline, 8w, 6m

Results

Key Results (both countries)

Significant within-group improvements over time in COPM performance and satisfaction in intervention and control groups.
No statistically significant between-group differences at follow-up in either study.
Secondary: patterns of improvement across SIS domains and self-efficacy over time, varying by context.

Outcome	Sweden	Uganda
COPM performance	Within-group ↑; no between-group diffs	Within-group ↑; no between-group diffs
COPM satisfaction	Within-group ↑; no between-group diffs	Within-group ↑; no between-group diffs
Self-efficacy / SIS	Several domains improved over time	Several domains improved over time

Implementation realities (Uganda)

Partial delivery for several participants: unstable SMS delivery and platform malfunctions. Automated 'red-flag' alert did not function reliably → weaker feedback loop and diluted intervention dose. Variable phone access and follow-up challenges in rural areas; replacement family members at times;
These fidelity issues likely reduced ability to detect between-group effects despite within-group gains.

Conclusions & Next Steps

F@ce 2.0 is feasible and clinically meaningful across diverse systems; mechanisms differ by context.
Sweden: complements existing teams; Uganda: often the core structure enabling consistent support.
Strengthen implementation fidelity: stabilise SMS platform, ensure backup contact routes, consider a face-to-face start,
and continue process evaluation to tailor delivery and sustain effects.

Implementation factor	Sweden	Uganda
SMS delivery	Stable add-on	Unstable for some; malfunctions
Red-flag alerts	Available in design	Did not function reliably
Access & follow-up	Team-based clinic/home	Variable phone access; rural follow-up challenges

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