Exercise-program for community dwelling frail older adults: effects on physical fitness, Activities of Daily Living, Participation and Health related Quality of Life
Introduction and aim

- More older people -> more frail persons
- Strongest evidence to prevent and counter frailty
  -> physical activity
- Daily 30 minutes moderate PA is enough
- Only 12% of all 75+ is physically active
- Barriers towards ‘exercises’
- Functional home based exercise program, better results, particularly at follow up
Method
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- Study 4: RCT (n=71)
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- Study 4: pilot RCT (n=71)
- Study 5: qualitative research, participants, experiences, effects, changes in behavior, ... (n=35)
Design study 4: pilot study

- Pragmatic Randomised Controlled Trial (3 conditions)
  - Inclusion: community dwelling, 70+, Groninger Frailty Index > 4/15 (GFI) (Steverink et al., 2001)
  - Exclusion: dementia, any acute pathology, immobility
- Control group
- Intervention group AA@home\(^1\) and AA@home\(^2\)
- Pre – and post tests
- Blind
- Analysis of covariance to compare the outcomes across groups with post-tests as outcome and baseline-values as covariates

- Process evaluation
  - Questionnaire and diaries
**Intervention**

- 8 weeks/3 sessions/1 hour
- Personal coach @home
- Exercises derived from daily activities
- Evidence-based training-principles
- AA@home\(^1\) with OT advise
- AA@home\(^2\) without OT advise but more physical intensive

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Outcome measures

- Physical parameters: Senior Fitness Test & Tinetti
- Activities of Daily Living: BIA
- Autonomy and Participation: IPA
- Quality of Life: SF-36
RESULTS

Semester 2

N=38

Complete datasets n=71
ACTIV-AGE@home\(^1\) n=29
ACTIV-AGE@home\(^2\) n=24
Controls n=16

Semester 1

N=33

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**Results**

- Physical =
  - Arm curl test +
  - Gait and balance +
  - Back scratch +

- ADL =
  - Autonomy & Participation ++

- Health related QoL
  - SF-36 =
  - Subjective health +

All: controls < AA$^1$ < AA$^2$
Qualitative results via questionnaires and diaries

- The participants felt
  - More confident: 80%
  - More safe: 80%
  - More fit: 90%
  - Stronger: 70%
  - More stable: 70%
  - Less fear of falling: 60%

...
At follow up (qualitative in depth interviews, n=35)

- Majority did not exercise by themselves anymore
- However, they do apply the OT-advises
- And ...

I go to the local service centre
I go out for lunch now
I engage in activities
I get dressed in the morning
I go shopping again
Discussion and conclusion

- A more ‘physical’ and intense exercise program had more effect
- Effects were mostly ‘subjective’ measures
- Which was in accordance with the results of the process evaluation
- However, at follow-up, no change in physical activity but change in daily functioning and engaging in activities and participation
Questions and information:

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