

**ACTIVE-
AGE@home**

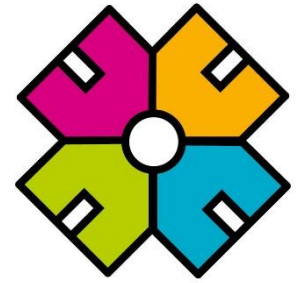
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**Exercise-program for
community dwelling frail older adults:
effects on physical fitness,
Activities of Daily Living,
Participation and
Health related Quality of Life**



Introduction and aim

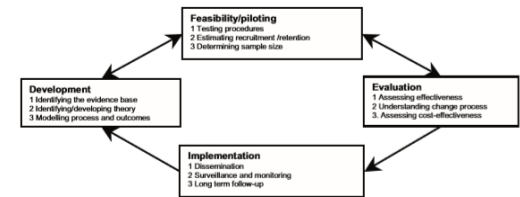
- More older people -> more frail persons
- Strongest evidence to prevent and counter frailty
-> physical activity
- Daily 30 minutes moderate PA is enough
- Only 12% of all 75+ is physical active
- Barriers towards 'exercises'
- Functional home based exercise program, better results, particularly at follow up



Method

Developing and evaluating complex interventions: new guidance

Figure 1 Key elements of the development and evaluation process



MRC, 2008

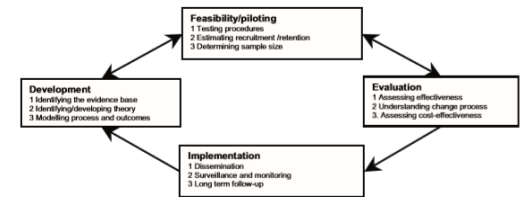


Method

- Study 1: qualitative research motivators and barriers towards PA (n=25) (2015-2016)

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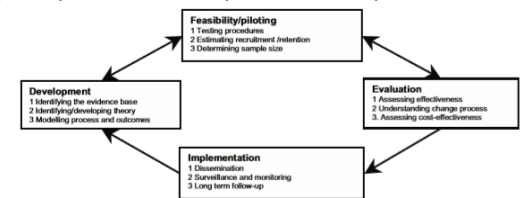


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- Study 1: qualitative research motivators and barriers towards PA (n=25) (2015-2016)
- Study 2: Systematic Review (Willems et al., 2016)

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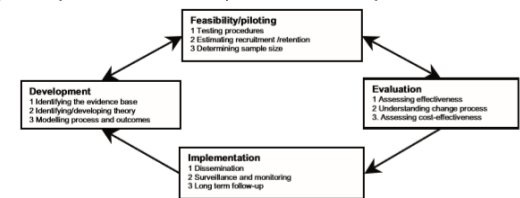


Method

- Study 1: qualitative research motivators and barriers towards PA (n=25) (2015-2016)
- Study 2: Systematic Review (Willems et al., 2016)
- Study 3: development program, case studies and pilot (n=21)

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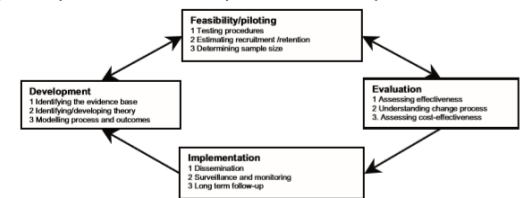


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- Study 1: qualitative research motivators and barriers towards PA (n=25) (2015-2016)
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- Study 4: RCT (n=71)

Developing and evaluating complex interventions: new guidance

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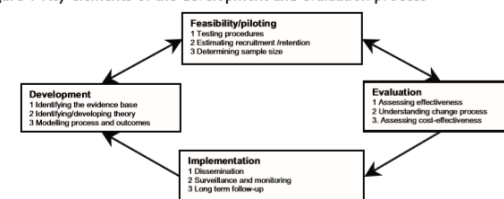


Method

- Study 1: qualitative research motivators and barriers towards PA (n=25) (2015-2016)
- Study 2: Systematic Review (Willems et al., 2016)
- Study 3: development program, case studies and pilot (n=21)
- Study 4: pilot RCT (n=71)
- Study 5: qualitative research, participants, experiences, effects, changes in behavior, ... (n=35)

Developing and evaluating complex interventions: new guidance

Figure 1 Key elements of the development and evaluation process



MRC, 2008

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@home¹ and AA@home²
 - 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@home¹ with OT
advise
- AA@home² without
OT advise but more
physical intensive

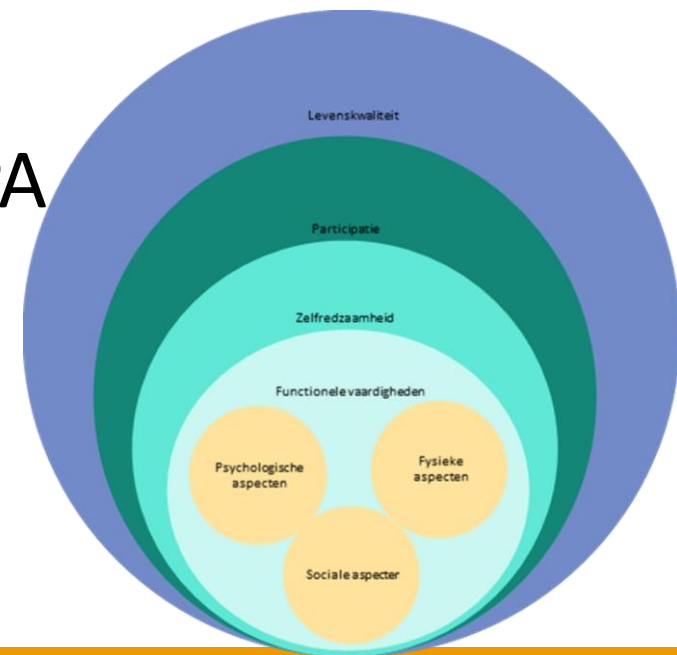


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Outcome measures

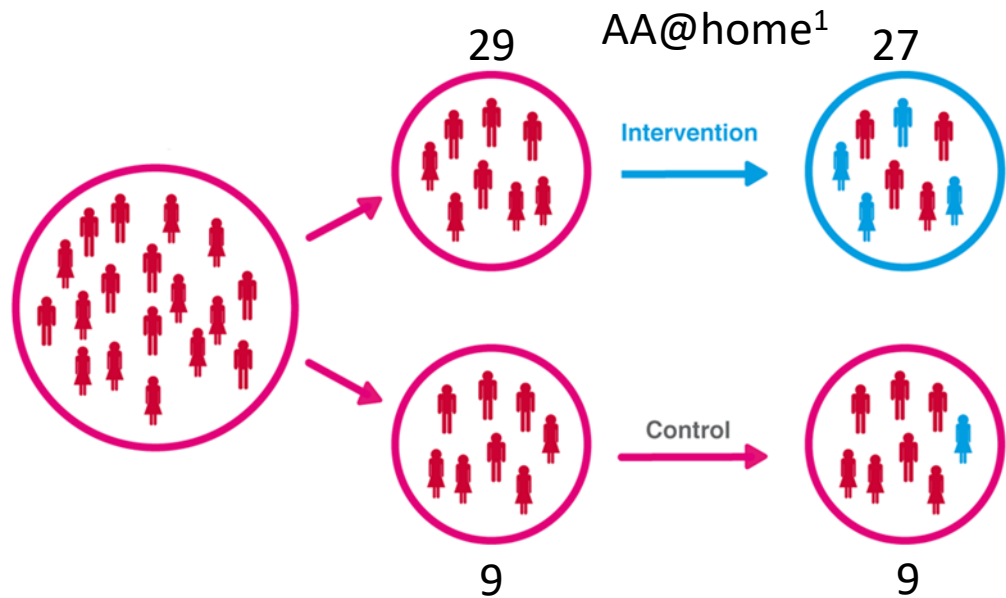
- Physical parameters: Senior Fitness Test & Tinetti
- Activities of Daily Living: BIA
- Autonomy and Participation: IPA
- Quality of Life: SF-36



RESULTS

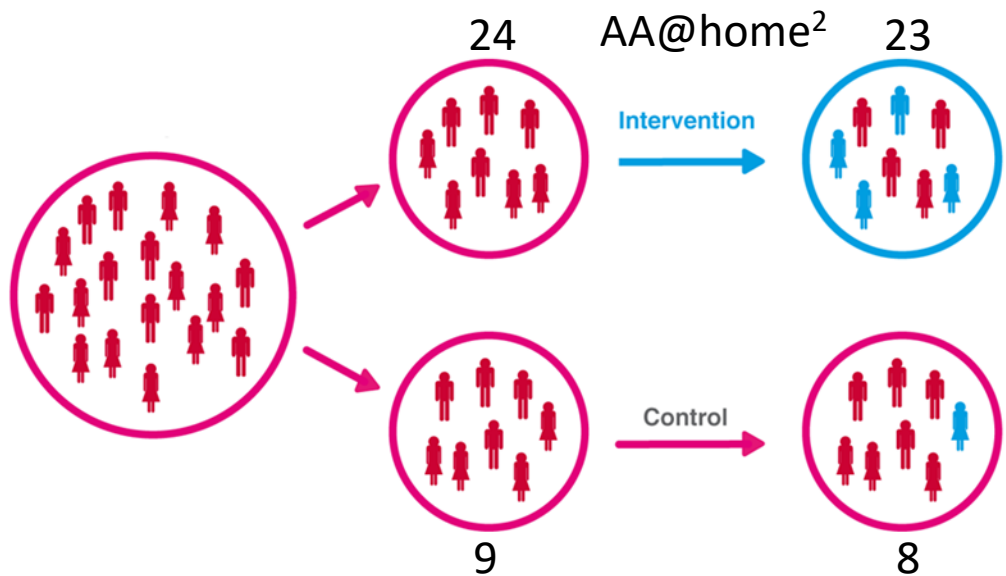
Semester 2

N=38



Semester 1

N= 33

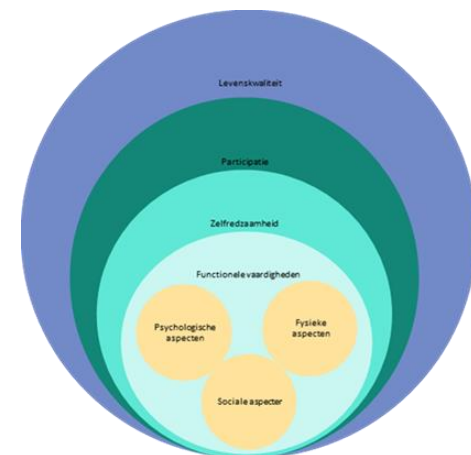


Complete datasets	n=71
ACTIV-AGE@home ¹	n=29
ACTIV-AGE@home ²	n=24
Controls	n=16

Results

- Physical =
 - Arm curl test +
 - Gait and balance +
 - Back scratch +
- ADL =
- Autonomy & Participation ++
- Health related QoL
 - SF-36 =
 - Subjective health +

All: controls < AA¹ < AA²



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 shopping again

I go out for lunch now

I get dressed in the morning

I go to the local service centre

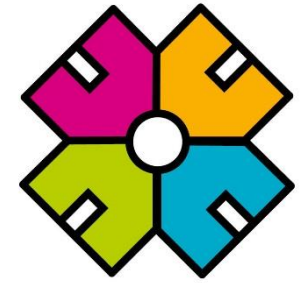
I engage in activities

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



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