A preventive eHealth ACT intervention for positive aging: differences between middle aged and older adults

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Background

Positive aging involves maintaining adequate levels of well-being in older age, despite facing inevitable changes and challenges. Psychological flexibility, which is the focus in Acceptance and Commitment therapy, can help in dealing with these challenges and preserving well-being. An 8-weekly stand-alone eHealth ACT intervention has been developed to foster both psychological flexibility and well-being in the general population.

Objectives

The aim of this study is to analyze whether the eHealth ACT intervention is equally effective for two different age groups of the general population: middle-aged individuals (40-59yr) and older adults (60-75yr) without specific complaints.

Method

A controlled longitudinal intervention study was conducted with 2 groups (experimental and control) and 3 measurements over time: baseline (T1), post-intervention (T2, after 8 weeks) and follow-up (T3, 8 weeks later). Analyses were performed using a mixed model 2(group) x 2(time) ANOVA with baseline measurement, mental health, experience in ACT and marital status as covariates. More details regarding the intervention:

Outcome measures

- Psychological flexibility: Flexibility Index test (FIT-60)
- Experiential avoidance: Acceptance and Action Questionnaire (AAQ-II)
- Psychological, emotional & social well-being: Mental Health Continuum short form (MHC-SF)
- Autonomy, competence and relatedness: Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS)

Sample characteristics

A total of 635 participants completed all measurements. Of these, 462 were middle-aged (40-59yr, mean=50.4, SD=5.5) and 173 were older-aged (60-75yr, mean=65.5, SD=4.2).

Table 1. Baseline differences

	Middle-aged (n=462)	Older-aged (n=173)	p-value
Gender (% female)	373 (81%)	109 (63%)	p<.001
Education (low-middle-high)	2.2% - 18.2% - 79.7%	12.1% - 15% - 72.8%	p<.001
Marital status (living together-living apart-single)	77.4% - 4.2% - 18.5%	73.5% - 2.9% - 23.5%	p=.312
Work situation (fulltime-parttime-not working/retired	29.4% - 49.9% - 20.7%	6.2% - 33.3% - 60.5%	p<.001
Physical health (good–not good not bad-bad	64.9% - 21.2% - 13.9%	63.6% - 25.4% - 11%	p=.144
Mental health (good-not good not bad-bad	69.3% - 22.9% - 7.8%	73.4% - 20.8% - 5.8%	p=.048
Experience with ACT/Mindfulness	259 (56.1%)	71 (41.4%)	p<.001

Results

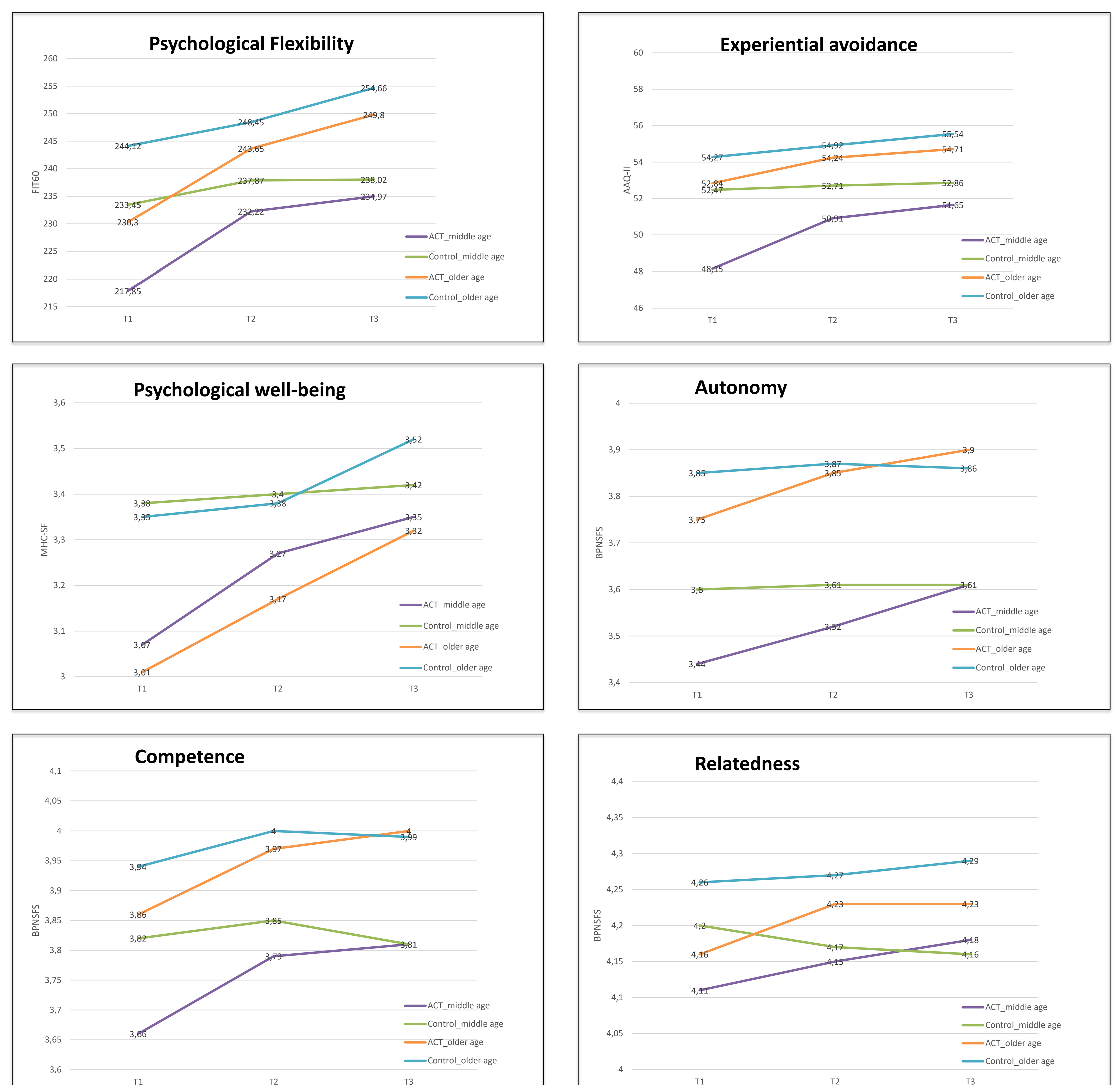
- The analyses showed significant effects for the middle-age group immediately after the intervention in the following areas: psychological flexibility, experiential avoidance, psychological well-being, autonomy, competence and relatedness (see table 2 and figures).
- For the older-age group only psychological flexibility showed a significant improvement immediately after the intervention.
- No significant effects were found in either age group at the follow-up measurement.
- All effect sizes indicate small effects.

Table 2. Effectiveness of the intervention in the middle- and older age group directly after the intervention (T2)

Outcome measures post-intervention (T2)	Middle-age (ACT n=240 vs. control n=222)	Older-age (ACT n= 96 vs. control n= 77)
Psychological flexibility	**p<.001***, d=.34	**p=.038***, d=.32
Experiential avoidance	**p=.002***, d=.29	p=.685
Psychological well-being	**p=.042***, d=.19	p=.715
Emotional well-being	p=.559	p=.978
Social well-being	p=.728	p=.927
Autonomy	**p=.026***, d=.21	p=.099
Competence	**p=.016***, d=.23	p=.410
Relatedness	**p=.023***, d=.21	p=.807

Note.*p<.05, d= cohen's d, higher scores on experiential avoidance indicate more acceptance

Figures. Means scores on baseline (T1), post-intervention (T2) and follow up (T3) for the four groups



Discussion

This study showed that the stand-alone eHealth ACT intervention had small beneficial effects in the general population with more pronounced effects in the middle-age group compared to the older-age group. Comparing mean scores (see figures) revealed that the older adults scored slightly higher on all outcome measures at baseline (except for psychological well-being), which is in line with developmental theories (e.g., socio-emotional-selectivity theory). A possible explanation for the limited effects in the older age group could be ceiling effects, where participants already had high baseline scores. Additionally, to maintain long-term benefits, it may be necessary to implement ongoing practice or booster sessions.

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