Effectiveness of a preventive eHealth ACT module for positive aging

Citation for published version (APA):

Document status and date:
Published: 26/07/2023

Document Version:
Publisher's PDF, also known as Version of record

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Effectiveness of a preventive eHealth ACT module for positive aging:
intervention study with middle-aged and older adults

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INTRO

Experiential and behavioral avoidance have a negative impact on well-being, quality of life, and overall happiness. Positive aging involves maintaining adequate levels of well-being in older age, despite inevitable changes and challenges. This suggests that an ACT treatment model could potentially be effective with this population. Can psychological flexibility help dealing with these challenges and help preserve well-being?

METHODS

The current study was a controlled longitudinal wait-list trial consisting of an 8-week stand-alone eHealth ACT module and an 8-week follow-up phase. More details regarding the intervention and its adherence:

Sample

A total of 955 healthy adults from the general Dutch population between 40 and 75 years old were included. Intention-to-treat analysis with a mixed 2 (group) x 2 (time) ANOVA was used including baseline scores (T1) and mental health (T1) as covariates.

	ACT	WLC	Total
T1	571	384	955
T2	378	349	727
T3	336	299	635

Drop-outs
23.9%
12.7%

Outcome measures

- Psychological flexibility: Flexibility Index test (FIT-60)
- Experiential avoidance: Acceptance and Action Questionnaire (AAQ-II)
- Psychological, emotional & social wellbeing: Mental Health Continuum (MHC-SF)
- Basic psychological needs (autonomy, competence and relatedness): Basic Psychological Need Satisfaction and Frustration Scale (BPNSFS)
- Psychological distress: Symptom Questionnaire (SQ-48)

RESULTS

There are small significant increases in the ACT-group (compared to the control group) directly after the intervention (T2) regarding the primary outcome measures:

- **Psychological flexibility (p<.001, Cohen's d=.33)**
- **Experiential avoidance (p=.003, d=.23)***
- **Psychological well-being (p=.034, d=.17)**

The ACT-group showed a greater satisfaction of the basic psychological needs compared to the WLC-group; Autonomy (p=.002, d=.25), Competence (p=.007, d=.21) and Relatedness (p=.025, d=.18). The positive effect stayed significant at follow up only for autonomy (T3; p=.031, d=.17).

* Higher scores reflect more acceptance and flexibility

Basic psychological needs: Autonomy, Competence & Relatedness
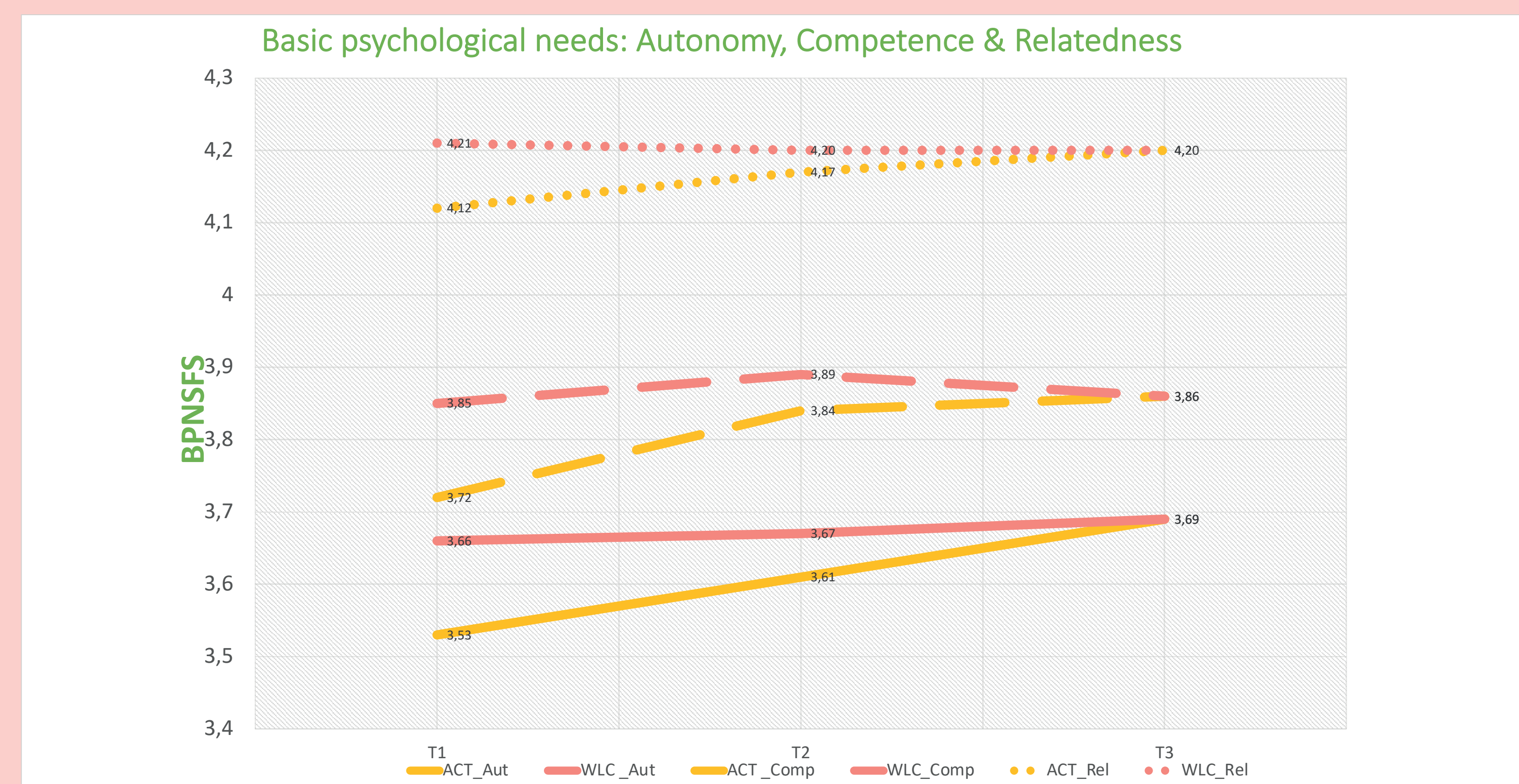
Additional results
Baseline characteristics

	ACT (n=571) (%)	WLC (n=384) (%)	p-value
Age (mean, SD)	54.1 (8.7)	54.1 (8.5)	p=.982
Gender (% female)	74	78	p=.287
Education			
Low	5.6	4.7	
Intermediate	19.4	16.1	p=.321
High	75	79.2	
Marital status			
Living together	72.7	79	
Living apart	4.6	4.6	p=.063
Single	22.7	16.4	
Work situation			
Fulltime	24	25.5	
Part-time	41.6	49	p=.057
Not working/retired	34.4	25.5	
Physical health			
Good	59.6	66.9	
Not good/not bad	22.9	21.4	p=.092
Bad	17.5	11.7	
Mental health			
Good	64.8	74.2	
Not good/ not bad	23.5	20.6	**p<.001**
Bad	11.7	5.2	

Per protocol analysis

Selection criteria: completed 75-100% of the intervention (self-report): n=220 (compared to WLC n=299).

Outcome measure	p-value	Cohen's d
Psychological flexibility	p < .001	1.06
Experiential Avoidance	p < .001	.09
Psychological well-being	p = .003	.26
Autonomy	p < .001	.33
Competence	p < .001	.29
Relatedness	p = .024	.20
Psychological distress	p = .018	.25
Depression	p = .040	.41
Anxiety	p = .037	.39
Social Phobia	p = .013	.23

DISCUSSION

This study shows that a stand-alone eHealth ACT module could have benefits for the general aging population without specific complaints. The per protocol analysis signifies a meaningful effect size of the intervention on the primary outcome psychological flexibility. Furthermore, the eHealth module showed increased scores on autonomy, competence, and relatedness, which may promote positive aging. Attention should be directed to potential bias associated with non-adherence and maintaining the positive effects on the long-term.