A preventive eHealth ACT module for positive aging

A preventive eHealth ACT module for positive aging: preliminary results

Jennifer Reijnders[1], Tim Batink[1,2,3], Marianne Simons[1], Sanne Peeters[1,2], Mayke Janssens[1,2], Johan Lataster[1,2], Nele Jacobs[1,2]

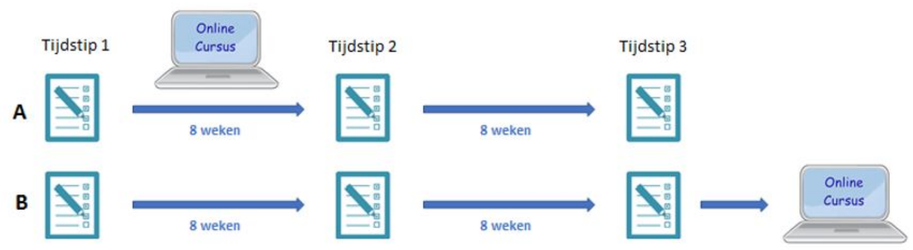
[1]Faculty of Psychology, Department Lifespan Psychology, Open University of the Netherlands, Heerlen, the Netherlands
[2]Department of Psychiatry and Neuropsychology, School for Mental Health and Neuroscience, Maastricht University, Maastricht, the Netherlands
[3] Department of Psychiatry & Psychology, Maastricht University Medical Centre, Maastricht, the Netherlands

Background

Positive aging involves maintaining adequate levels of well-being in older age, when inevitable changes and challenges are met. Psychological flexibility can help dealing with these challenges and consequently help preserve well-being[1,2]. An eHealth ACT-module was developed to foster both psychological flexibility and well-being in the general population.

Method

A controlled longitudinal intervention study was done with 3 measurements over time. Healthy adults between 40 and 75 years old from the general Dutch population were included. Group A (experimental group) was given access to the module after measurement 1, group B (control group) was given access after measurement 3.



eHealth module

The eHealth ACT-module was designed as a stand-alone module of 9 sessions. Participants were given access for 8 weeks (1 session per week, except for session 1 and 2). The minimal investment was 30 minutes per session. Each session contained a short introduction of a specific ACT-skill through a video clip, followed by a metaphor and several exercises (fill-in exercises, hands-on exercises and guided experiential exercises) to practice the new skill. The module was compatible for pc, tablet and smartphone and was made available via Embloom.

ACT-sessions:

1. Introduction ACT
2. Creative Hopelessness (the struggle)
3. Acceptance (making room)
4. Defusion (taking distance)
5. Self as Context (identity)
6. Present Moment (attention)
7. Values (orientation)
8. Committed Action (investing)
9. Psychological Flexibility (bringing it all together)

Measurements

Primary outcome measures are:

- Psychological flexibility assessed with the Flexibility Index test (FIT-60)[3]
- Experiential avoidance assessed with the Acceptance and Action Questionnaire (AAQII)[4]
- Psychological, emotional and social wellbeing assessed with the Mental Health Continuum- short form (MHC-SF)[5]
- Basic psychological needs (autonomy, competence and relatedness) assessed with the Basis Psychological Need Satisfaction and Frustration Scale (BPNSFS)[6]

Analysis

Intention-to-treat analysis were done using SPSS version 28. Baseline differences were tested with t-test and chi-square tests. Multivariate repeated measure ANOVA was used with a 2(group) x 2(time) design and baseline scores were included as covariates to control for baseline group differences. Control variables age, gender, education and mental health were included.

Facebook: OU Master Levenslooppsychologie
Twitter: OU_LifespanPsy
LinkedIN: OU-Levenslooppsychologie
Email: jennifer.reijnders@ou.nl

Results

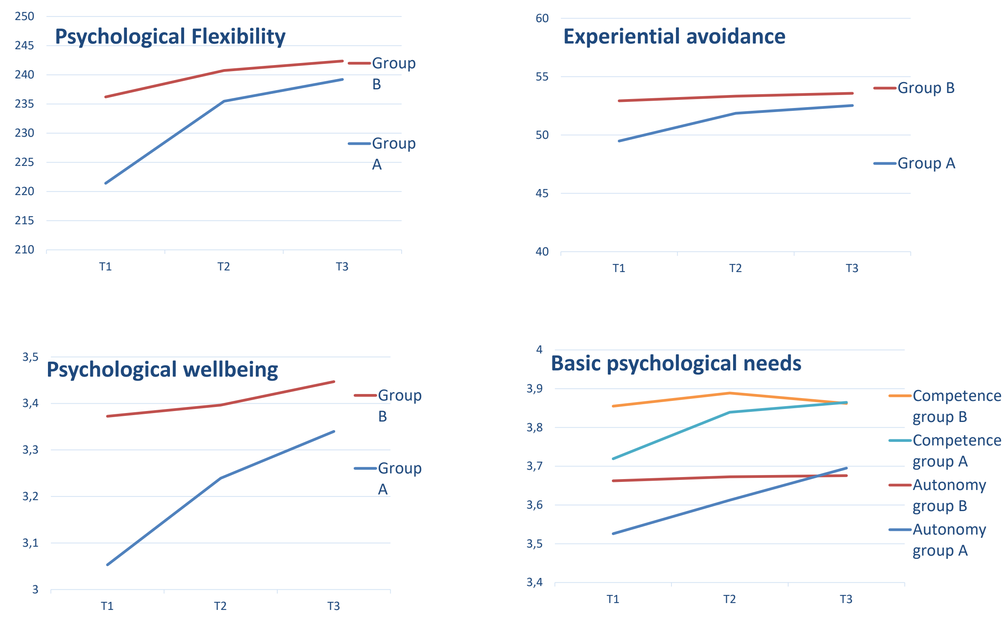
A total of 955 participants between 40 and 75 years old were included. Of these 635 completed the third measurement.

	Group A	Group B	Total sample	
T1	571	384	955	Drop-out: 23.9%
T2	378	349	727	
T3	336	299	635	Drop-out: 12.7%

There were no significant demographical differences at baseline between both groups, except for self report of mental health (p<.001).

	Group A (n=571)	Group B (n=384)
Age (mean, SD)	54.1 (8.7)	54.1 (8.5)
Gender (% female)	422 (74%)	299 (78%)
Education (low-middle-high)	5.6% - 19.4% - 75%	4.7% - 16.1% - 79.2%
Marital status (living together-living apart-single)	72.7% - 4.6% - 22.7%	79% - 4.6% - 16.4%
Work situation (fulltime-parttime-not working/retired	24% - 41.6% - 34.4%	25.5% - 49% - 25.5%
Physical health (good–not good not bad-bad	59.6% - 22.9% - 17.5%	66.9% - 21.4% - 11.7%
Mental health (good-not good not bad-bad	64.8% - 23.5% - 11.7%	74.2% - 20.6% - 5.2%

The RM ANOVA showed significant (group) effects for the FIT-60 (F=18.63, p<.001), AAQII (F=10.99, p<.001), MHCSF subscale psychological wellbeing (F=4.29, p=.039), BPNSFS subscale autonomy (F=12.70, p<.001) and competence (F=10.71, p=.001). The interaction effects between time (T2 and T3) and group were only significant for BPNSFS subscale autonomy indicating that the intervention effects did not further increase after T2 except for autonomy (F=4.63, p=.032). All effect sizes indicate small effects (Cohen's d = 0.17-0.20). No significant effects were found for MHCSF subscale emotional and social wellbeing and BPNSFS subscale relatedness.



Discussion

These preliminary results show that the preventive eHealth ACT module increased psychological flexibility and decreased experiential avoidance in the general Dutch population of 40 years and older. Also (small) positive effects were found for psychological wellbeing and the basic psychological needs autonomy and competence. Future analysis will include secondary outcome measures (loneliness and psychopathology) and take into account level of participation.

We would like to thank Katleen Verdoodt, Eduard de Vries, Saskia Monna, Caroline van Genk, Astrid Lippolt, Josien Metske and Jasper Tilburg for contributing to the data collection for this study.

References:
1. Reijnders J, Simons M, Batink T, Janssens M, Peeters S., Lataster J & Jacobs N (2019). De rol van Psychologische Flexibiliteit bij Positief Ouder worden. [Staying flexible while aging. The role of Psychological Flexibility in Positive Aging] Tijdschrift Positieve Psychologie, 3(3), 46-54
2. Hill R (2011). A Positive Aging Framework for Guiding Geropsychology Interventions. Behavior therapy, 42, 6677
3. Batink T, Jansen G & De Mey H.R.A. (2012b). De Flexibiliteits Index Test (FIT-60): Een beknopte beschrijving. GZ-Psychologie, 5, 18-21.
4. Bond F et al, (2012). Preliminary Psychometric Properties of the Acceptance and Action Questionnaire-II. Behavior Therapy 42, 676-688
5. Lamers et al (2011). Evaluating the Psychometric Properties of the Mental Health Continuum-short form. Journal of Clinical Psychology 67(1), 99-110
6. Chen et al (2014). Basic Psychological need satisfaction, need frustration, and need strength across four cultures. Motivation and Emotion 39(2), 216-236