

# UNDERSTANDING ENGAGEMENT IN WEB-BASED ACT INTERVENTIONS FOR PARENTAL BURNOUT: USAGE, DOSE-RESPONSE AND USER EXPERIENCES



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# ENGAGEMENT

- Main question: Is engagement associated with changes in symptoms or process measures?
  - For example, Mattila et al. (2016) found that active usage of a mobile app for stress management was associated with increase in psychological flexibility
  - Levin et al. (2016) also found that higher engagement to exercises in a web-based intervention was linked to increased psychological flexibility
- Dose-response: How much and how frequently an intervention programme should be used in order to produce positive change?

# DIFFERENCES BETWEEN SWEDISH AND FINNISH WEB-BASED PROGRAMS

- Content
  - Mostly similar, with minor differences in some exercises and images
- Functionality
  - In the Finnish program, participants were not able to input anything in the web program, but were asked to use a separate diary
  - Reminders were sent less frequently in the Finnish program
- Authentication
  - With the Swedish program, participants' email addresses were used as usernames; with the Finnish program, two-digit numbers were used

## FINNISH UUPU STUDY: INITIAL ANALYSIS

- Descriptive statistics of similar usage metrics as in the Swedish study
  - Usage days, usage time, completion percentage, satisfaction
- Associations between engagement metrics and pre-post changes in the primary outcome measure were examined with partial correlations, controlling for respective baseline score
  - Outcome measure: SMBQ (burnout symptoms)
  - Process measures: data not yet available

# INITIAL RESULTS: OVERALL ENGAGEMENT IN THE INTERVENTION

Finnish Uupu study

## USAGE ACTIVITY AND ENGAGEMENT: COMPARISON OF THE TWO STUDIES

Engagement metric	Description	UUPU (Finland) n=17	ACTParents (Sweden) n=27
Usage days	Total number of days on which a participant accessed the web intervention	Median 6 days (mean 7.7; SD 5.9; range 2-23)	Median 12 days (mean 13.3; SD 8.9; range 2-36)
Total usage time	The sum of a participant's usage sessions in hours	Median 1.9 hours (mean 2.1; SD 1.0; range 0.4-3.7)	Median 2.9 hours (mean 3.6; SD 2.2; range 1.1-8.5)
Completion percentage	Percentage of intervention content completed by a participant	Median 100.0% (mean 87.0; SD 20.2; range 34.4-100.0)	Median 93.1% (mean 85.0; SD 18.7; range 32.8-100.0)
User satisfaction	Satisfaction with the web programme on scale of 1-10 (very dissatisfied – very satisfied)	Median 7.0 (mean 6.7; range 1-10) <sup>1</sup>	Median 9.0 (mean 7.5; range 2-10)

<sup>1</sup> This question was phrased differently: "How beneficial do you feel the UUPU web program was for you?"

Satisfaction with the entire intervention was slightly higher (median 8.0)

# USER EXPERIENCES: MODULES AND THEMES

- Which modules or themes did you like the most or which benefited you the most?
  - “Each module was useful in its own way.”
  - “Two last ones. I didn’t like the first one.”
  - “Most useful for me was the part about being present. You cannot escape the child’s illness, you have to face it and accept it.”
  - ”I definitely got the most insights and help from module 4. It had really good perspectives about looking forward, observing thoughts and feelings, and letting go. Acceptance (module 5) was comforting, it helped me to put my views into words.”
  - ”Small, short exercises were my thing. Doughnut example really good, compassion so important but so darn hard. Still looking for absolute favourites, lots of good ones. I intend to go through the modules again.”

# FEEDBACK ABOUT THE PROGRAM

- Would you recommend the UUPU program and remote support by a psychologist to others? (1=Definitely not, 10=With pleasure)
  - Median 9, range 3-10 (88% answered 7 or higher; 59% answered 9 or 10)

“Discussions deepened exercise topics and also made me to put more effort into doing the exercises.”

“Metaphors for stress management, winding down and living in the present. I’ve learned to be critical towards my old thought patterns and search more workable solutions in everyday life. My skills to manage and notice my emotions and stress have also developed. I’ve learned kindness and compassion towards myself.”

“I’ve learned to focus on being present in my child’s life, both physically and mentally.”

“Before the program, I had lost myself in our family’s everyday life and forgotten what I want from life and how I want to live. I was stuck in my old ways of thinking which just added to exhaustion and stress. The program helped me to examine my situation and thought patterns from a distance, which in turn helped me to make changes in everyday life and in my own mind.”

## DEVELOPMENT SUGGESTIONS

### **Support:**

”Anonymous peer support chat or discussion forum for those in a similar situation.”

”More remote meetings with a psychologist.”

”Who follows up if there are questions?”

### **Content/social:**

”Maybe this could be made more versatile by having more things to identify with. Now the chemistry between the story’s character and myself didn’t work :d”

”More videos in which e.g. professor tells serious [scientific] stuff about each theme! There wasn’t too much of it.”

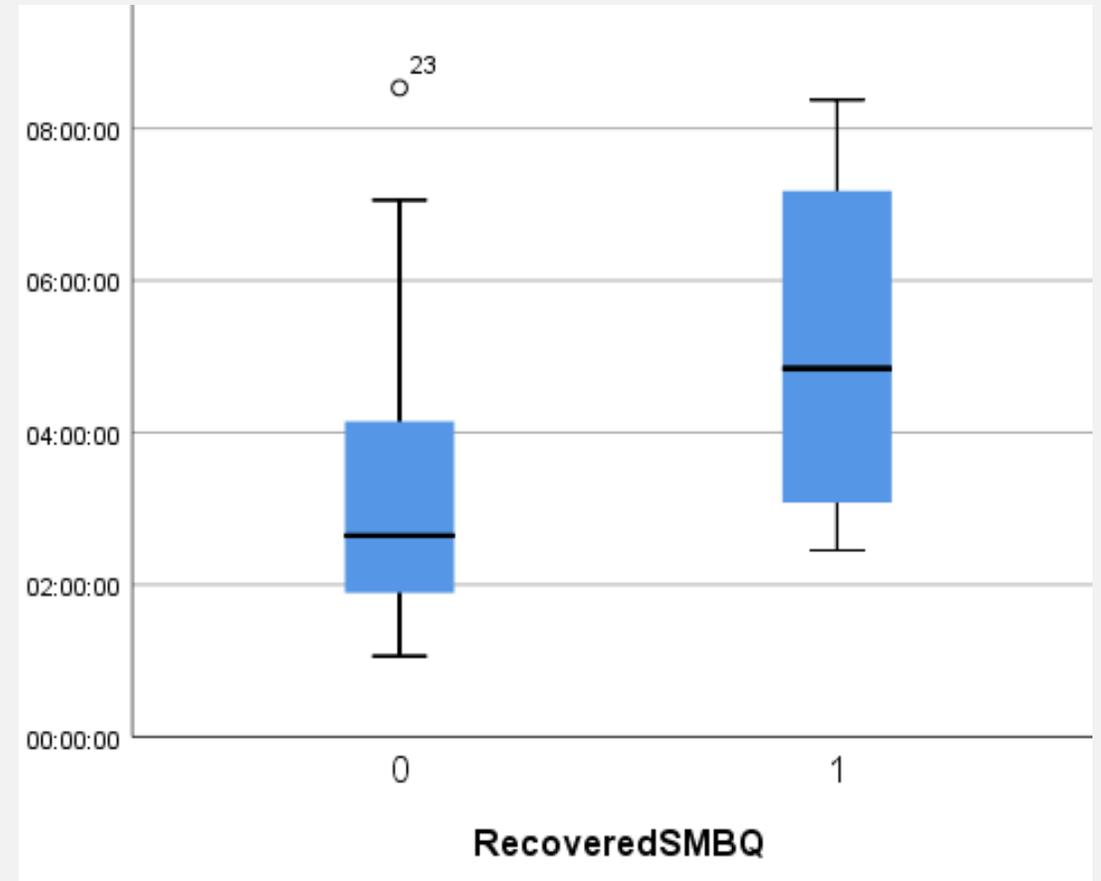
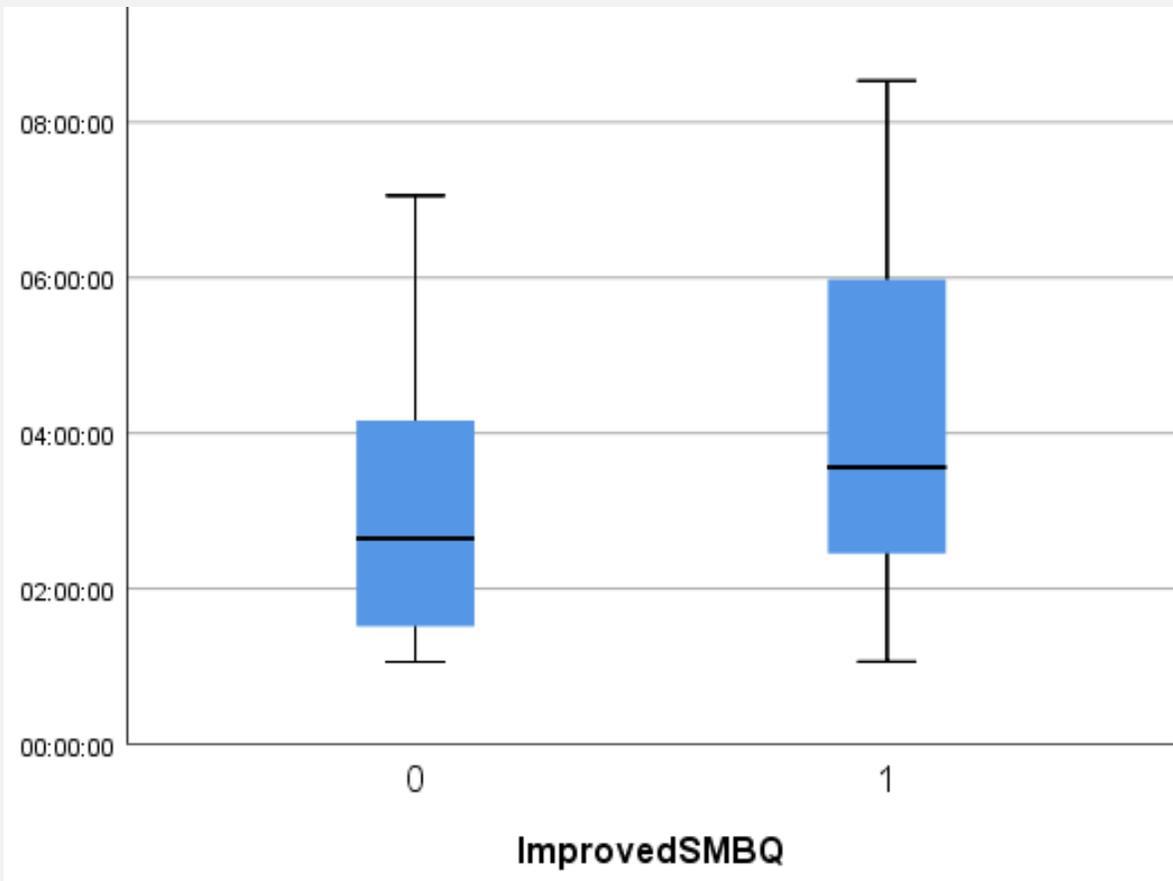
### **Content/skills:**

”More concretely how to apply the exercises, tips for time management so that you could actually arrange your life so that everyday hassles don’t take all time and energy.”

## PRE-POST CHANGES X ENGAGEMENT

	Usage days	Usage time	Completion percentage	Satisfaction with the Uupu program
SMBQ	.19 (.52)	.35 (.22)	.43 (.12)	<b>.53 (.05)*</b>

# SWEDISH STUDY: TRENDS IN SMBQ IMPROVEMENT/RECOVERY AND TOTAL USAGE TIME



## SWEDISH STUDY: FOLLOW-UP ENGAGEMENT X SMBQ CHANGE (PRE-FUP, N=20)

- No significant associations:
  - Use of the program after the intervention period
  - Practicing learned skills after the intervention period
  - Likelihood to recommend the program to other parents
- Borderline significance:
  - Perceived usefulness of the web program
- Significant:
  - Perceived positive impact of the program on family life
  - Perceived positive impact of the program on relationship with child/children

# CONCLUSIONS AND FUTURE WORK

# CONCLUSIONS

- In both studies, no clear association between usage activity and changes in burnout symptoms was observed in these initial analyses
  - Satisfaction correlated with SMBQ change in the Finnish but not in the Swedish study
  - In the Swedish study, completion percentage correlated with FFMQ and CFQ changes
- Usage activity in the Finnish study was lower (1.9 hours and 6 days vs. 2.9 hours and 12 days)
  - Outcomes still equal in terms of burnout – how large is the impact of coach meetings and writing in a diary?
- Only pre-post changes in measures have been examined thus far
  - Would associations emerge if we looked at pre-followup and possible continued use of the program?

# FUTURE DIRECTIONS

- We need to work on the ways to define and measure engagement in web interventions
- What could be investigated further?
  - Thematic analysis of reflection exercises: what actions participants reported having done?
  - Effect of reminders
  - Impact of coach and feedback
  - Adherence to intended usage: percentages of exercises completed on schedule
  - Impact of working on different themes in the intervention (time spent on each module)
  - Continued use after the intervention period
  - Usage activity of those who dropped out

**THANK YOU!**

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