Smartphone delivered ACT for adults with chronic pain – a feasibility study

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Conclusions

Smartphone delivered Acceptance and Commitment Treatment (ACTsmart) for adults with chronic pain is feasible regarding acceptability, practicality and adaptation. A limited-efficacy evaluation shows promising results, warranting a large clinical trial.

Introduction

Chronic debilitating pain is common, and behavioral interventions aimed at improved self-management is a critical ingredient in effective treatment. Acceptance and Commitment Therapy (ACT) is a development within CBT with strong research support but availability is low. Smartphone based interventions may increase reach as well as effects, and more research is urgently needed.

Objective

To assess the feasibility, including limited-efficacy, of ACTsmart in adults with chronic pain.

Methods

N=34, 88 % women, age 25-57 (m=44.3), pain duration m=20.5 years

The treatment

- therapist guided, lasted for 8 weeks, ACT protocol

Feasibility

- acceptability, practicality, adaptation and limited efficacy (psychological (in)flexibility, pain interference, valued living, depression and anxiety), user experience (UX) interviews

Data collection

- pretreatment, posttreatment and at 3-, 6-, and 12-month follow up. Further analyses for linear mixed effects are planned.

Results

Acceptability

One participant discontinued treatment, and 3 participants did not start the treatment. For the remaining 30 participants treatment engagement was high. Completion rate: theory sections = 91.2 % (of 29 texts); exercises = 58.6 % (out of 29 exercises). Participants wrote on average 7.5 messages to their therapist seeking feedback.

Practicality

The average time therapists spent on patients during the treatment was 127 minutes (range 17-254). Therapists texted the patients (outside the treatment platform) on average 1.94 times and made on average 0.94 phone calls.

Adaptation

Although tentative, outcomes in this pilot study appear similar to what is seen in face-to-face treatment with a similar protocol, indicating the utility of the structure, content and format of ACTsmart.

Limited-efficacy testing

Preliminary pre-post analyses indicate large improvements in pain interference (d = 1.10) and psychological inflexibility (d = 1.20), and moderate improvements in depression (d = 0.50), anxiety (d = 0.50) and quality of life (obstruction (d = 0.70) progress (d = 0.50)). Future studies should evaluate effects of ACTsmart in clinical trials, including comparisons with standard treatment.

Early sketches of the therapist interface, developed in UX-testing

Examples of the patient interface.