



# Evaluation of the effectiveness of a brief intervention based on Acceptance and Commitment Therapy for Irritable Bowel Syndrome non-patients

## #1-36

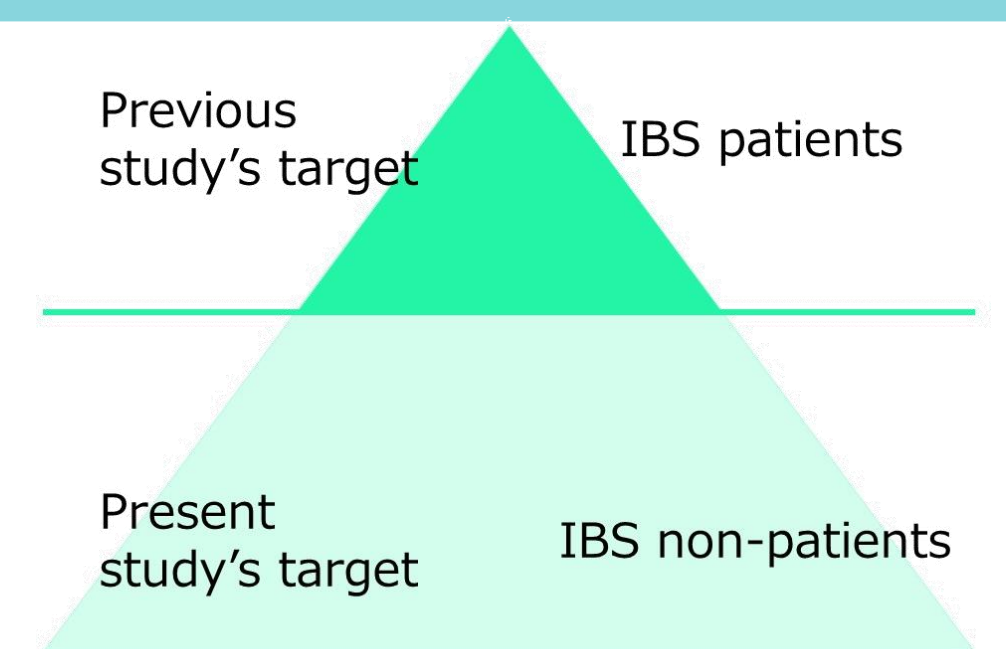
Masataka Ito<sup>1</sup>, Takashi Muto<sup>2</sup>

<sup>1</sup> Graduate School of Psychology, Doshisha university, <sup>2</sup> Faculty of Psychology, Doshisha University  
E-mail: ito.mstka@gmail.com

## Background & Objective

Irritable Bowel Syndrome (IBS) is a functional gastrointestinal disorder affecting 11.2% of the global population (Lovel & Ford, 2012). We must provide preventive support for IBS non-patients. Acceptance and Commitment Therapy (ACT) was effective for IBS patients (Ferreira et al., 2017).

**Objective:** To examine whether a **one-day group ACT program had any benefit for IBS non-patients.**



## Method

### Participants

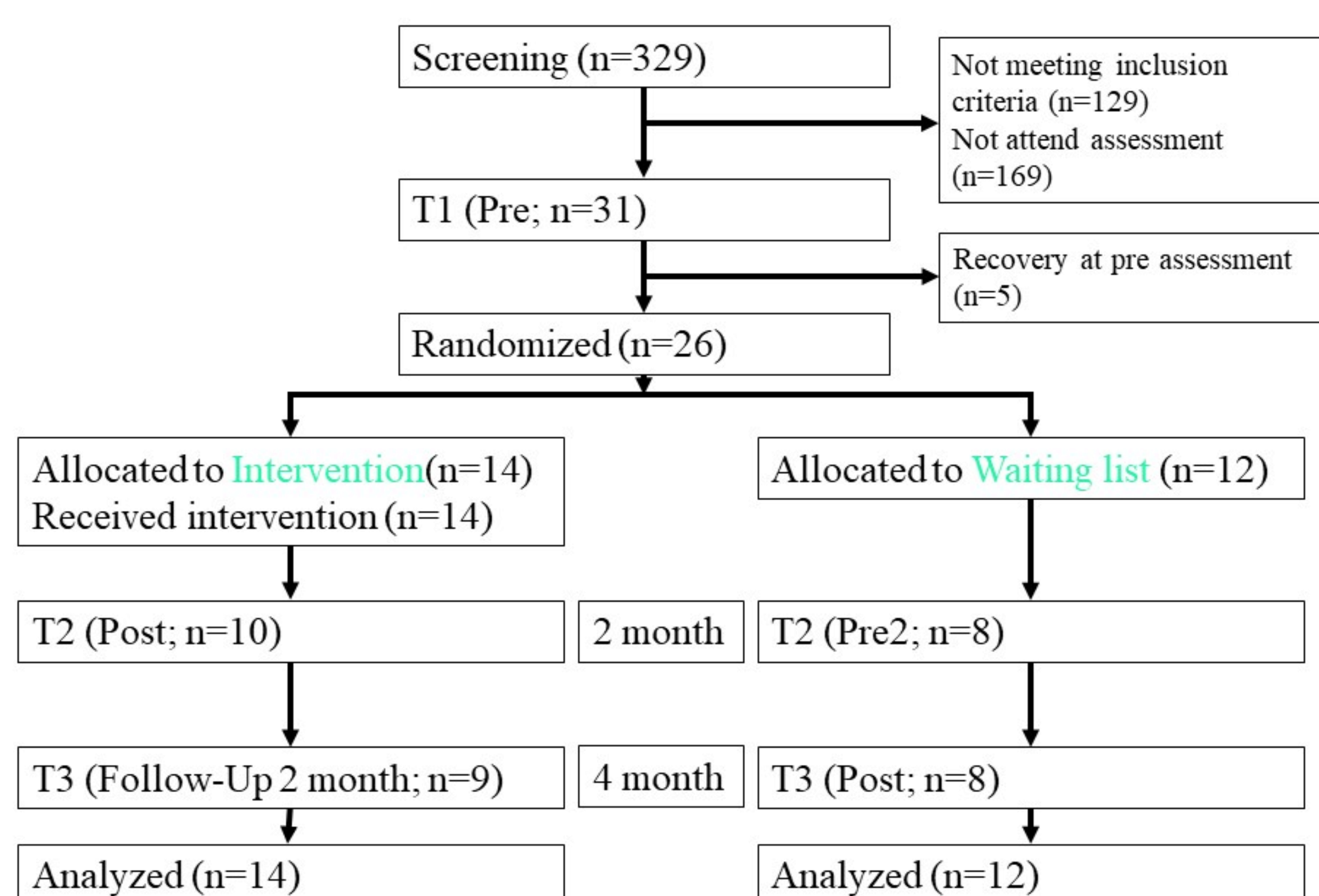
**IBS non-patients** (n = 26; male n = 10; mean age 19.09 years)

- A total of 26 undergraduates who scored above the clinical cutoff on the IBS-SI at screening.
- This group was not under medical care and did not have organic disease as suggested by the presence of warning symptoms.

### Treatment Protocol

#### ACT for Irritable Bowel Syndrome

We used "ACT for IBS" (Ferreira & Gillanders, 2012). We translated this protocol into Japanese. We used the workshop protocol and worksheet and the workbook "Get out your mind".



**Fig.1** Flow chart of this trial

### Outcomes

#### Primary outcome

- IBSSI** (Irritable Bowel Syndrome Severity Index)

#### Secondary outcomes

- IBSQOL** (Irritable Bowel Syndrome Quality of Life)
- SF-36** (Medical Outcomes Study Short Form 36)
- BDI** (Beck Depression Inventory – II)
- STAI** (State-Trait Anxiety Inventory)

#### Process measures

- AAQ** (Acceptance and Action Questionnaire – II)
- CFQ** (Cognitive Fusion Questionnaire)
- FFMQ** (Five-Facet Mindfulness Questionnaire)

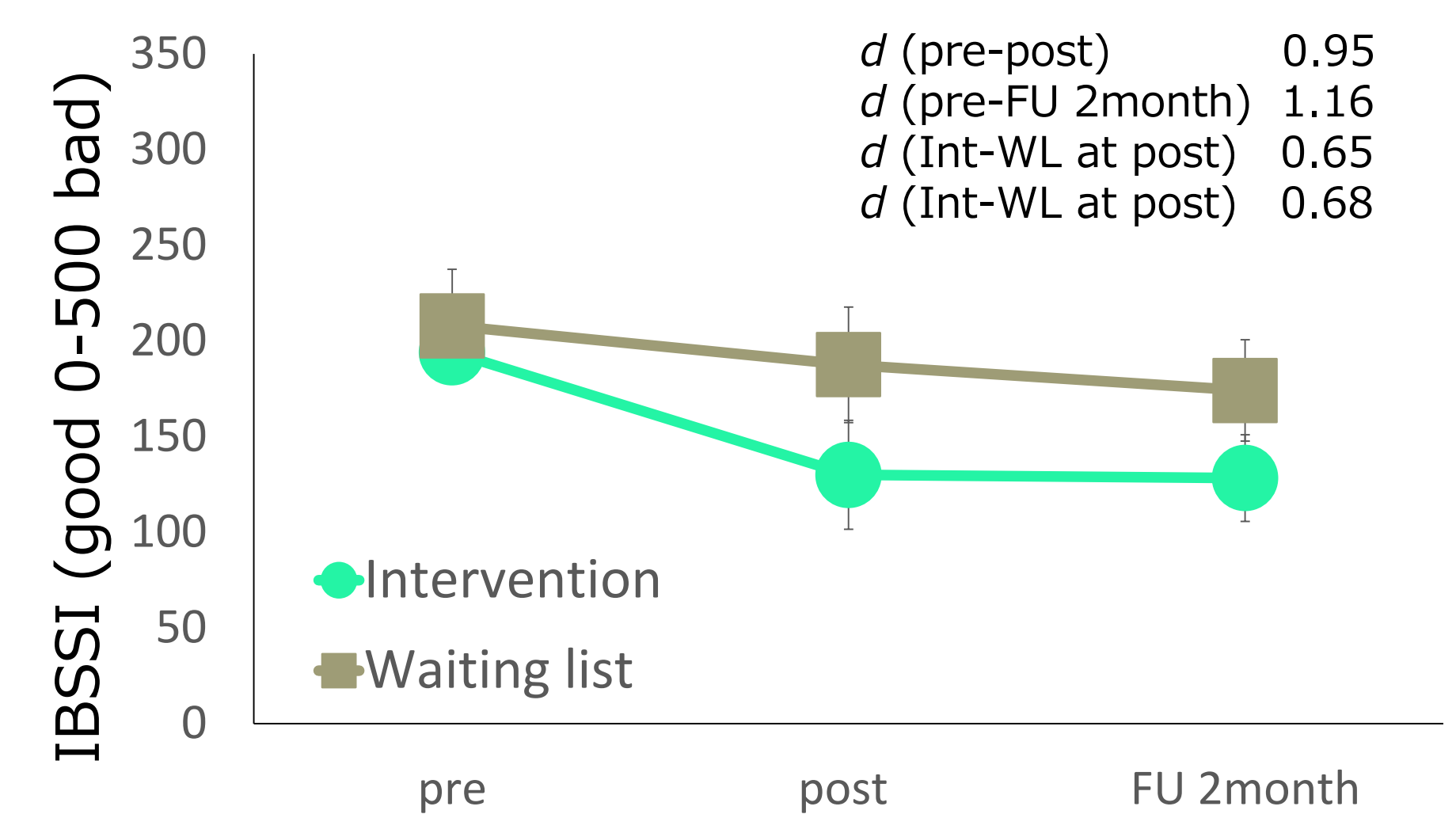
### Analysis

We used **repeated ANOVA for pre, post and follow up** data. For missing data, we used the Last Observation Carried Forward imputation method. Data from pre-FU were used to calculate effect size in the intervention group.

## Results

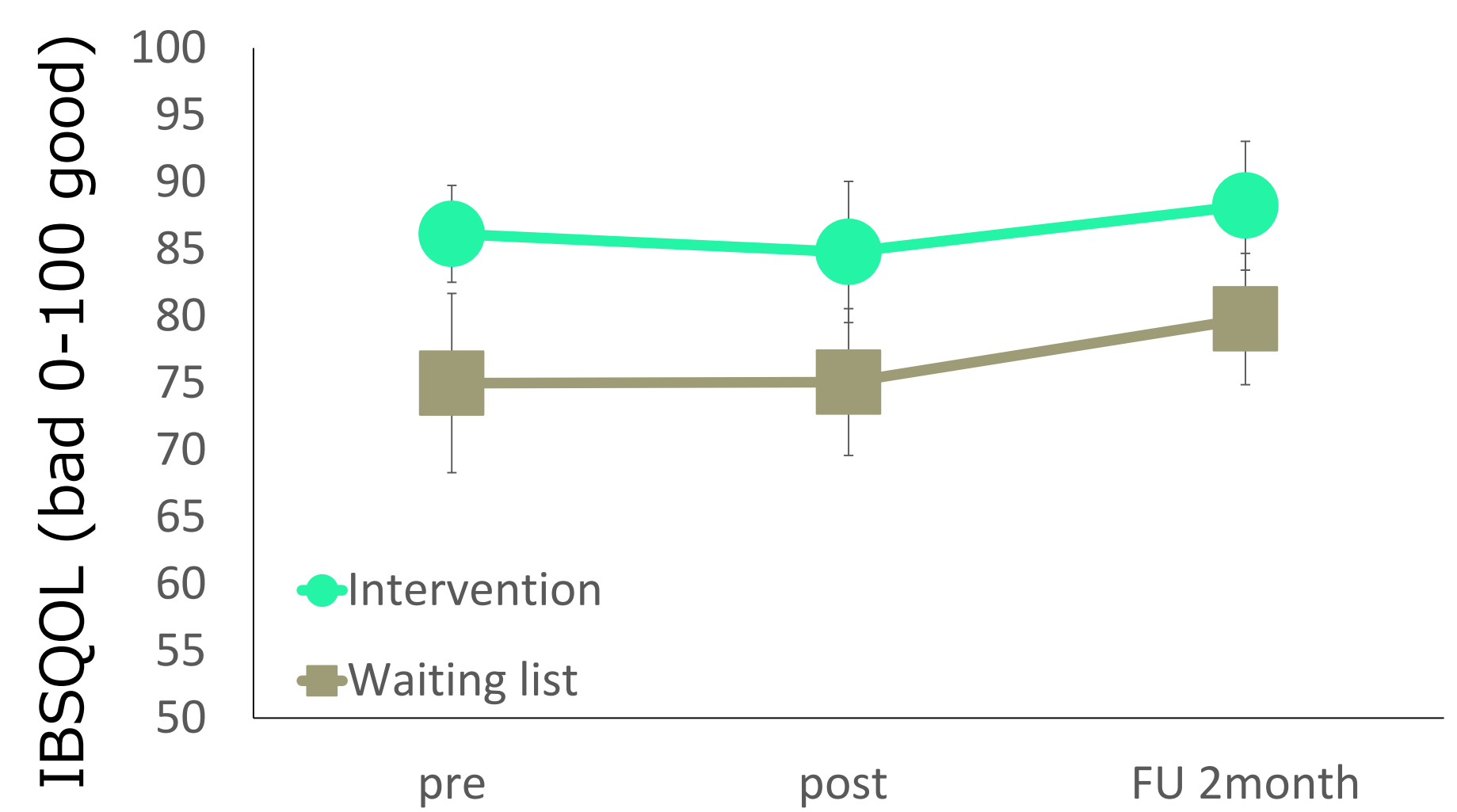
### Primary outcomes

**IBSSI** This measure showed significant time main effect ( $F[2,48] = 4.45$ ), with no significant group main effect ( $F[1,24] = 1.94$ ) and interaction ( $F[2,48] = 1.01$ ). Cohen's  $d$  within-group was large from pre to post ( $d = 0.95$ ) and pre to FU ( $d = 1.16$ )



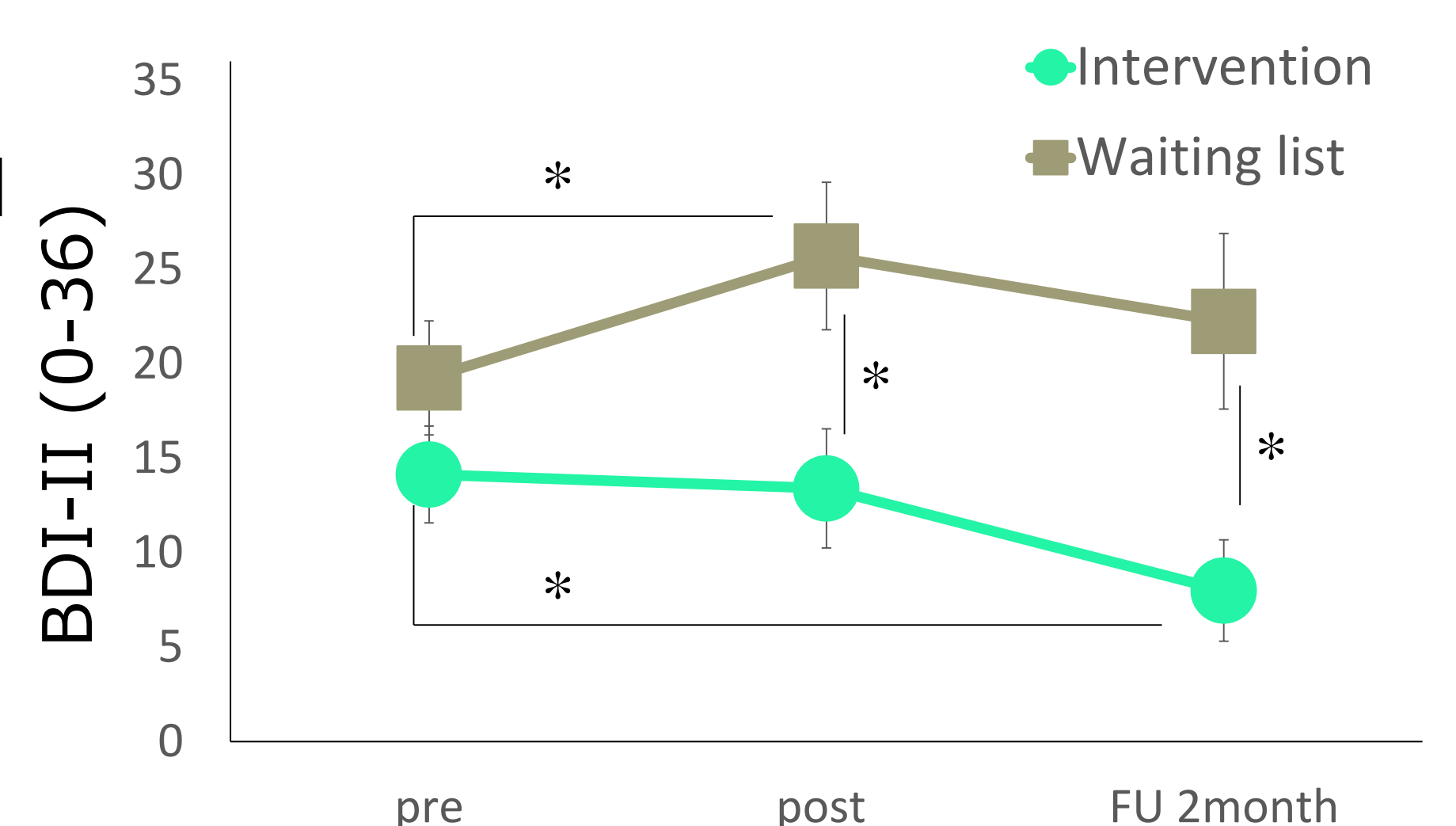
### Secondary outcomes

**IBSQOL** This measure did not show significant change (time main effect;  $F[2,48] = 1.02$ : group main effect;  $F[1,24] = 2.38$ : interaction;  $F[2,48] = 0.39$ ).

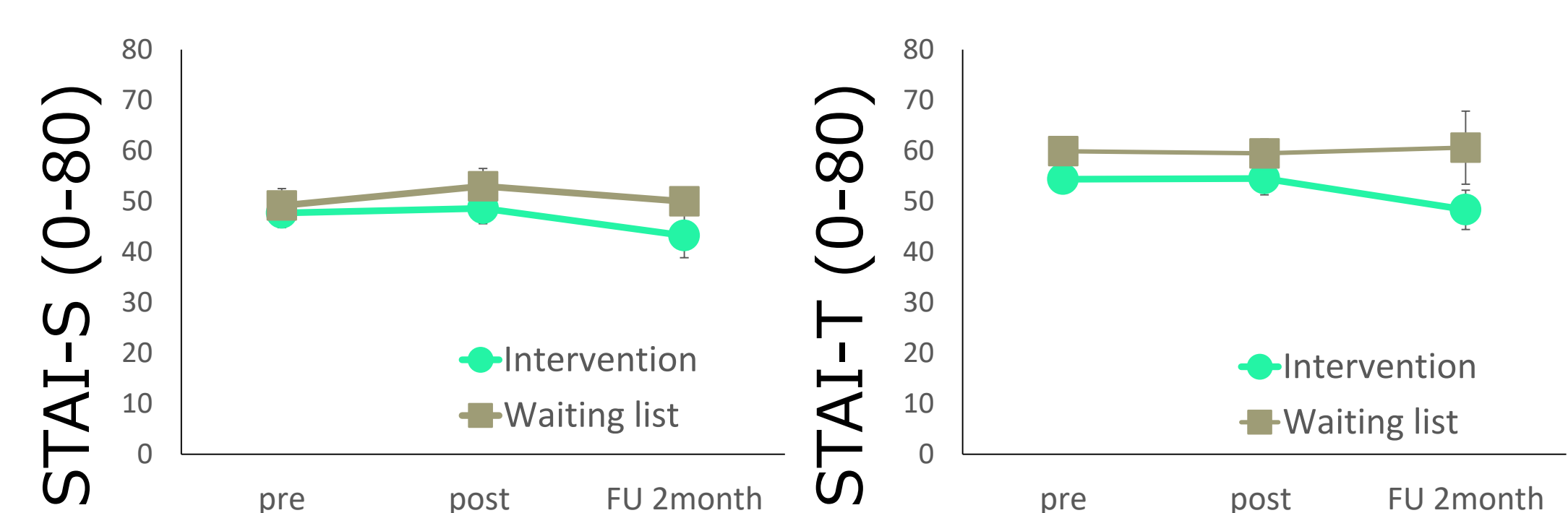


**SF-36** This measure did not show significant interaction in all three summary scores (PCS,  $F[2,48] = 0.18$ : MCS,  $F[2,48] = 0.37$ : RCS,  $F[2,48] = 0.88$ ).

**BDI** This measure showed significant interaction (interaction;  $F[2,48] = 10.17$ ). Post hoc analyses showed intervention group improved pre to FU and WL group worsened pre to post.

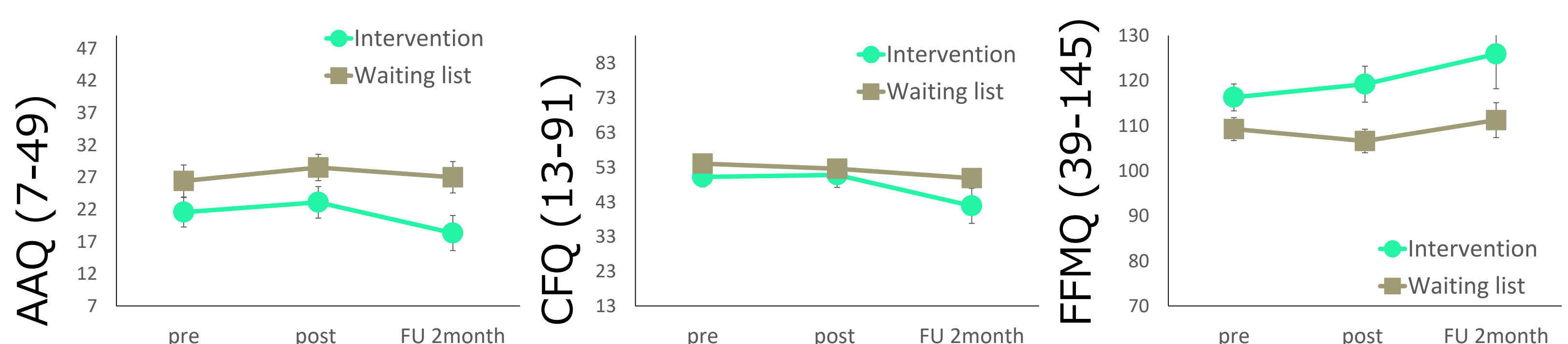


**STAI** The STAI-T showed marginally significant group main effect ( $F[2,48] = 3.34$ ). STAI-S did not show significant change.



### Process measures

These measures did not show significant interaction. (AAQ,  $F[2,48] = 1.67$ : CFQ,  $F[2,48] = 0.50$ : FFMQ,  $F[2,48] = 1.05$ )



## Discussion

This study showed that a **one-day group ACT program for IBS non-patients had preventive effects.** The intervention group showed improvement of depressed mood and medium to large effect size in IBS symptom severity. There was concern that **the treatment process was unclear** because the intervention group did not show improvement in process measures. We suggested that a one-day session was not enough to promote continuous exercise to improve psychological flexibility.