

Psychological Flexibility and mental health issues of parents of children having disabilities

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Introduction

Caregivers supporting children with disabilities often suffer mental health issues such as depression, anxiety, and social isolation. We provided a mental health support program for such parents and conducted research to demonstrate the effectiveness of the program. We conducted four research in different areas in Japan.



Purpose

- Synthesize the results of four research we conducted.
- Demonstrate the mental health condition of the parent of children having disabilities and explore the relationships between psychological flexibility (AAQ-II) and mental health (BDI-II and GHQ-28).

Results & Conclusions

Characteristics of parents of children having disabilities

The mean score of AAQ-II was 41.0, SD=9.1. The mean score of BDI-II was 13.1. AS the cut-off score of BDI-II in Japanese population is 13/14, 34.7% of the parents showed the above cut-off score. The mean score of GHQ-28 was 8.73, the cut-off score of GHQ-28 is 5/6. 57.3 % of the patient showed above the cut-off score.

The changes of the outcome measures

The significant change of the score of BDI-II was found between pre-test and post-test ($t=3.80$, $p<.001$) and the effect size is medium ($r=.45$). The significant change was also found in GHQ-28 ($t=3.38$, $p<.001$, $r=.41$). Means for all phases are shown in Fig.1

Twenty participants showed above the cut-off score in BDI-II at the pre-test. 40% of them recovered to usual level after the WS. Twenty of thirty nine participants who showed above the cut-off score in GHQ-28 recovered after the WS (about 50%).

The changes of the process measure

The change of the score of AAQ-II was not significant between pre-test and post-test.

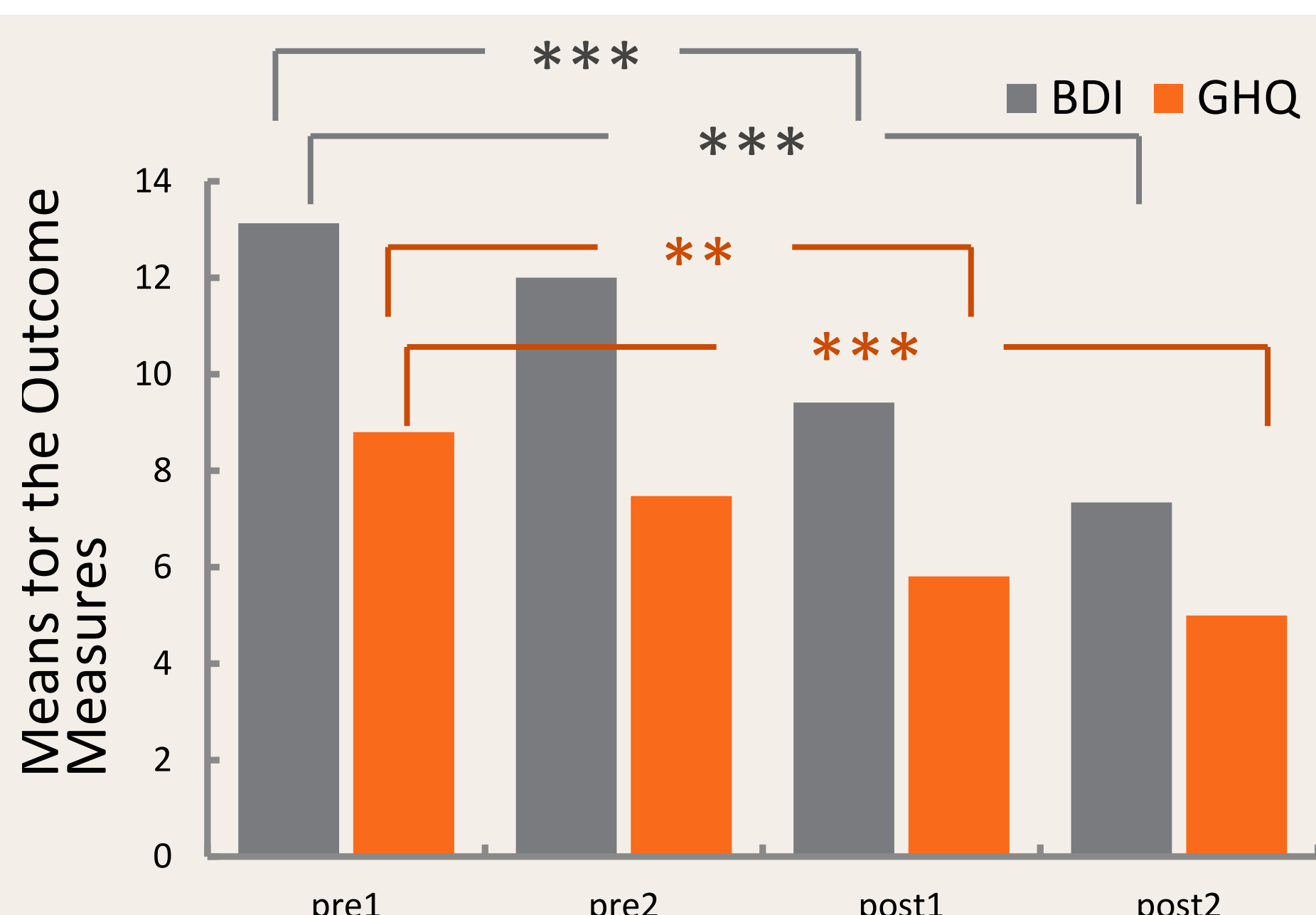


Fig.1. Phase Means for Outcome measures

** $p < .01$, *** $p < .001$

Methods

The workshop was based on ACT, and All WS was conducted in a group format. About 20 parents got together, practiced experiential exercises from ACT, and shared their experiences with each other.

Participants 77 parents provided the data of pre-test assessment and 68 parents finished the ACT WS. 58 parents-data who answered all questions necessary for calculating the score of outcome and process measure were used to analyze the relationships between the outcome measures and the process measure.

Measures We used two outcome measures to investigate the effectiveness of the WS: the BDI-II, a measure of depression, and the GHQ-28, a general health questionnaire. AAQ-II, JIBT-R, FFMQ, PFMQ and LOC were used as the process measures.

Table1. Overview of the four research

	Year	Rejions	Participants	Design	process measures	Results
TANI, KAWAI, & KITAMURA	2010	Hyogo	27	Pre/Post with multiple measures	AAQ-II, JIBT-R, LOC	post BDI-II < pre BDI-II ($p<.01$), post GHQ-28 < pre ($p<.01$)
SUGANO & TANI	2011	Nagoya	14	Pre/Post with multiple measures	AAQ-II, JIBT-R, LOC, PHMFS	post BDI-II < pre BDI-II ($p<.01$), post GHQ-28 < pre ($p<.01$)
TANI, KITAMURA, OKAMOTO & OKAMOTO	2012	Fukui	20	Quiting List control	AAQ-II, JIBT-R, FFMQ	Group × Phase interaction $p=.033$ for BDI-II
TANI, KAWAI, & KITAMURA	2013	Hyogo	7(ACT) 6(TAU)	Randomized Control	AAQ-II, FFMQ	compared to TAU Group ACT < TAU for BDI-II

JIBT-R | Japanese Irrational Belief Test-Revised / **LOC** | Locus of Control / **PHMFS** | Philadelphia Mindfulness Scale
FFMQ | Five Facets Mindfulness Questionnaire

The interrelationships between the process measures and the outcome measures

The score of the AAQ-II at the pre-test was significantly correlated with the amount of the change between pre-BDI-II (GHQ-28) and post-BDI-II (GHQ-28). The correlation was $r=.32$, $p=.02$ for BDI-II, and $r=-.35$, $p=.03$ for GHQ-28 (Table 2). This indicated participants showing the lower AAQ-II score at the pre-test got the larger change of the two outcome measures after finishing the WS.

Regression Analysis was conducted in order to investigate the relationships between the outcome measures and process measures (Table3). Automatic Linear Modeling (SPSS ver.20) was used to build the predictive models. With the score of pre-test BDI-II being controlled, Regression analysis revealed that the amount of change for AAQ-II and the external helplessness were the significant predictor of the score of BDI-II. The amount of change of AAQ-II was the only predictor for GHQ-28. These results indicated that Psychological Flexibility played an important role in improving the mental health of parents of children having disabilities (Fig2,3).

Table2. Pearson's correlation between the Pre-1 AAQ and Outcomes change scores

	Pre1 AAQ-II
BDI-II change scores after WS (pre1-post1)	-.319*
GHQ-28 change scores after WS (pre1-post1)	-.346*
BDI-II change scores before WS (pre1-pre2)	.004
GHQ-28 change scores before WS (pre1-pre2)	-.098

* $p < .05$, ** $p < .01$, *** $p < .001$

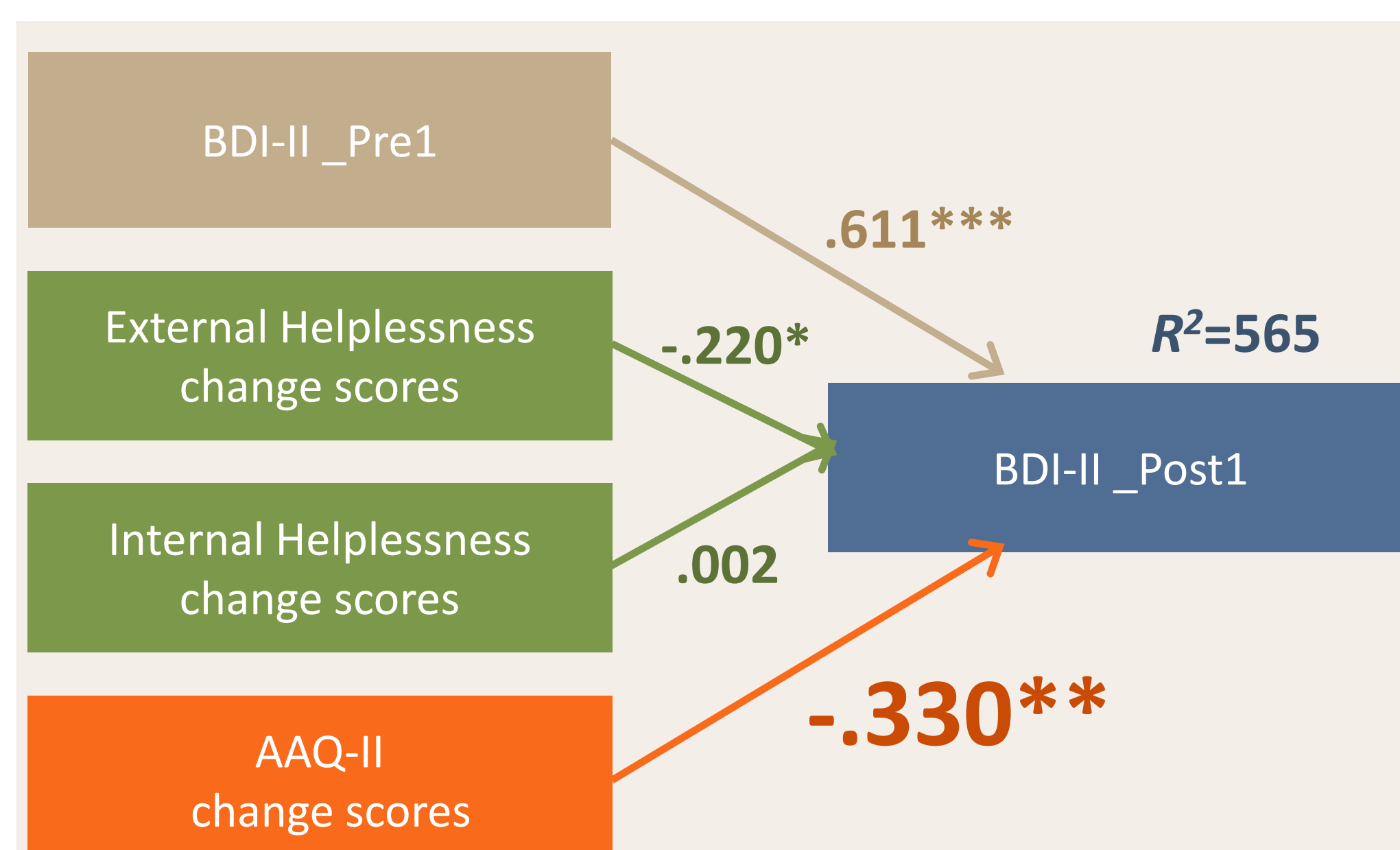


Fig2. Standardized coefficients obtained from hierarchical regression analysis of BDI-II

* $p < .05$, ** $p < .01$, *** $p < .001$

Table3. Hierarchical regression analyses of the outcome measures

step	BDI /GHQ_Pre1	External	Internal	AAQ-II	ΔR ²
BDI-II					
1	.640***				.409***
2	.740***	-.284*	-.123		.113**
3	.611***	-.220*	.002	-.330**	.081*
GHQ-28					
1	.458**				.210**
2	.519***	-.231	-.189		.117*
3	.467**	-.165	-.105	-.284*	.065*

Note. Standardized coefficients(beta) are shown.
* $p < .05$, ** $p < .01$, *** $p < .001$

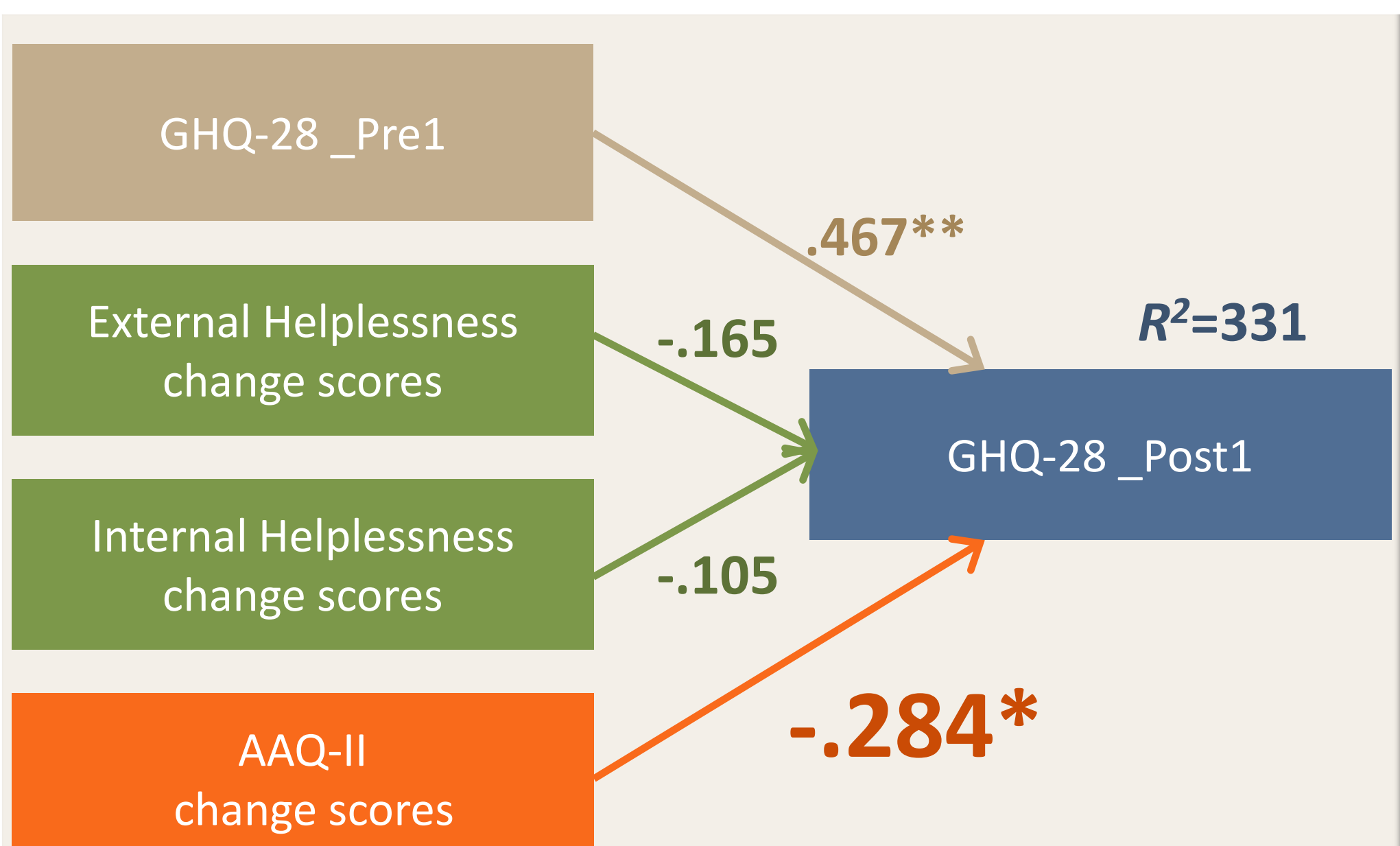


Fig3. Standardized coefficients obtained from hierarchical regression analysis of GHQ-28

* $p < .05$, ** $p < .01$