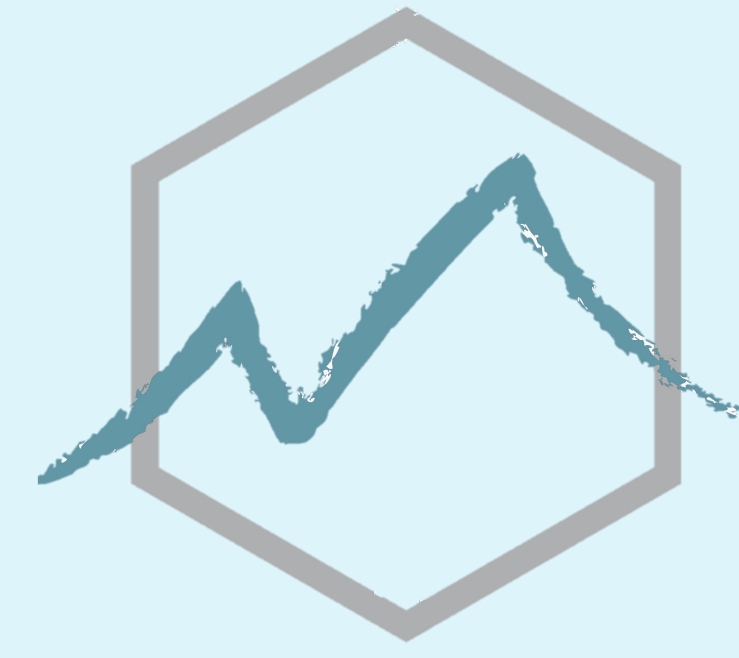


Self-Help for Self-Stigma? Evidence from a Randomized Trial of Acceptance and Commitment Therapy (ACT) and Traditional Cognitive Behavioral Therapy (CBT) for Depression



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Background

- *Self-stigma* is defined as the presence of persistent, negative beliefs directed towards oneself (Barney et al., 2010), in contrast to *perceived stigma*, which is one's perception of how others negatively judge them
- Acceptance and commitment therapy (ACT) has previously shown efficacy in addressing self-stigma in a variety of clinical populations
- In a study examining ACT for substance use, compassion-based techniques were found to enhance ACT for shame and self-stigma (Luoma et al. 2008)
- Similarly, ACT was found to promote flexibility in how the individual responds to societal stigma around HIV (Skinta, et al. 2015)
- While self-stigma may arise in several mental health conditions, it is especially pervasive among depressed individuals and reduces the likelihood of treatment seeking (Guarneri et al., 2019)
- We explored the impact of two common self-help approaches, acceptance and commitment therapy (ACT) and traditional cognitive behavioral therapy (CBT) on self-stigma in a sample of depressed college students, a population with high rates of self-stigma (Vogel et al., 2017)
- Identifying evidence-based treatment processes that can effectively address self-stigma in depressed individuals may help to make the treatment of depression more effective, efficient, and precise, in line with the process-based therapy model (Hofmann & Hayes, 2019)
- Evaluating whether earlier change in processes predicts later change in self-stigma is an initial step to identifying active processes of change
- We sought to determine whether changes in theorized ACT and CBT therapeutic mechanisms early in treatment influenced later self-stigma outcomes

Methods

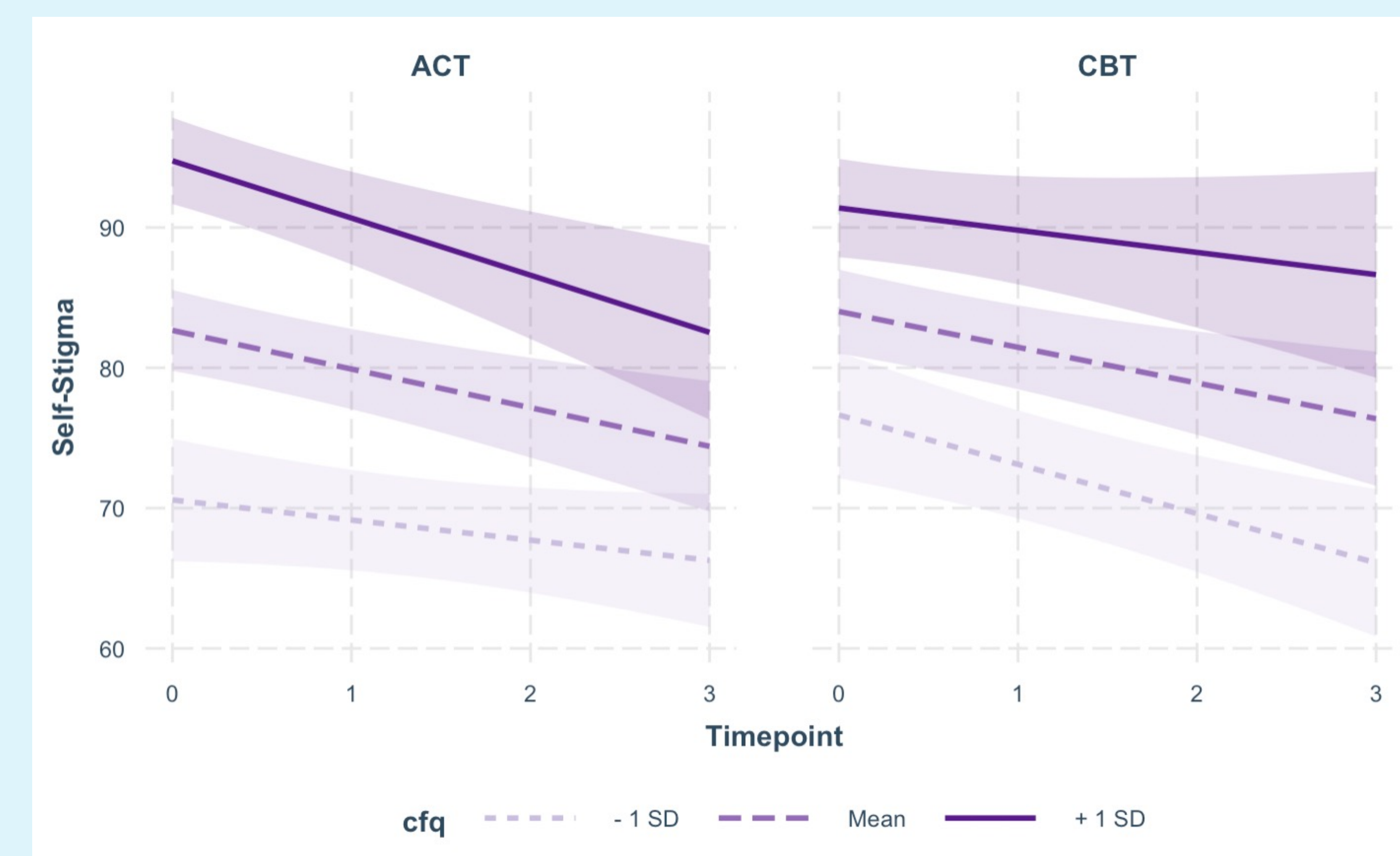
- 142 undergraduates with at least moderate depression from a large public university in the Western United States were recruited
- Our sample was largely young ($M = 23.3$), female (78.4%), white (92.8%), non-Hispanic (91.4%), and not currently in therapy (82.7%)
- Students used an ACT (*The Mindfulness and Acceptance Workbook for Depression*; Strosahl & Robinson, 2008) or CBT (*The Cognitive Behavioral Workbook for Depression*; Knaus, 2006) online self-help book for depression over a period of 10 weeks
- Participants were randomly assigned to the ACT book, CBT book, or their choice; for the purposes of this analysis, these subsets are grouped by intervention
- We analyzed the following outcome and process measures :
 - **Self-Stigma of Depression Scale** (SSDS; Barney et al., 2010): 16-item measure of depression-related self-stigma
 - **Acceptance and Action Questionnaire-II** (AAQ-II; Bond et al., 2011): 7-item measure of psychological inflexibility
 - **Cognitive Fusion Questionnaire** (CFQ; Gillanders et al., 2014): 7-item measure of cognitive fusion
 - **Behavioral Activation for Depression Scale** (BADs; Kanter et al., 2007): 25-item measure of approach and avoidance behaviors in depression
 - **Automatic Thoughts Questionnaire-Frequency** (ATQ; Hollon & Kendall, 1980): 30-item measure of frequency of negative self-statements related to depression
 - **Thought Control Questionnaire-Reappraisal** (TCQ-R; Wells & Davies, 1994): 6-item measure of reappraisal of depressive thoughts

Table 1. Changes in ACT/CBT process measures predicting posttreatment depression-related stigma

BL SSDS β	BL p	AAQ-II β	CFQ β	BADS β	ATQ β	TCQ-R β	Process p
0.70	<.001	-0.12					.29
0.72	<.001		-0.25				.032
0.78	<.001			0.33			.009
0.76	<.001				-0.35		.004
0.69	<.001					0.14	.22

The regression model tested whether changes in one of five process variables from baseline to midtreatment predicted posttreatment scores for self-stigma, controlling for baseline scores. All β coefficients are standardized to indicate predicted change in self-stigma based on a one-standard deviation change in the process variable being tested.

Figure 1. Change in self-stigma over time according to book and level of cognitive fusion



The interaction model tested whether which self-help book a student read affected the relationship between cognitive fusion and self-stigma over time. Levels of cognitive fusion are grouped into high, average, and low. Timepoints are as follows: (0) baseline, (1) midtreatment, (2) posttreatment, and (3) three month follow-up. In the ACT condition, improvements in cognitive fusion were more predictive of improvements in self-stigma.

Results

- A series of linear regression models was used to determine whether changes in ACT or CBT therapeutic processes during the first half of treatment (weeks 1-5) were predictive of self-stigma outcomes at the end of treatment (week 10), see Table 1
- Reductions in automatic thoughts ($p = .004$), decreases in cognitive fusion ($p = .032$), and increases in behavioral activation ($p = .004$) during the first half of treatment were all predictive of self-stigma at posttreatment
- Changes in psychological inflexibility and cognitive reappraisal were not associated with changes in self-stigma ($ps > .10$)
- A three-way interaction between time, book, and each process measure was additionally tested on self-stigma outcomes
- Changes in cognitive fusion were more predictive of self-stigma over time for students using the ACT book than for those using the CBT book ($\beta = -0.24$, $p = .03$; see Figure 1)
- No other process variables were more associated with a particular book in regards to their effect on self-stigma ($ps > .10$)

Discussion

- Whether using an ACT or CBT intervention, the processes of cognitive fusion, behavioral activation, and automatic thoughts may all be important in reducing self-stigma associated with depression
- In our study, the treatments were differentiated by ACT having a stronger impact on the association between cognitive fusion and self-stigma compared to CBT
- A previous study examining cognitive fusion and stigma on Multiple Sclerosis-related psychological wellbeing found that cognitive fusion directly and indirectly affected stigma, depression, anxiety and quality of life in this population (Valvano et al., 2016)
- ACT treatments have shown promise in targeting self-stigma in a number of psychiatric conditions (Luoma & Platt, 2015)
- Our findings further suggest that when working with depressed individuals, targeting cognitive fusion early in treatment may lead to meaningful reductions in self-stigma over time

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