

INTRODUCTION

Pessimistic attributional style is the habitual tendency to see negative events arising from internal, stable, and global causes and serves as the centerpiece for the Reformulated Learned Helplessness Theory (Abramson, Seligman, & Teasdale, 1978). The theory posits that in the face of negative life events, individuals with a pessimistic attributional style are at heightened risk to experience depression. Attributional style is assessed with a self-report measure called the Attributional Style Questionnaire (ASQ; Peterson et al., 1992).

Beck's Cognitive Therapy of Depression (CT; Beck, Rush, Shaw, & Emery, 1979) represents one of the most efficacious treatments for depression (DeRubeis & Crits-Christoph, 1998). Reducing pessimistic attributional style has been posited as one mechanism in the recovery from depression following successful treatment with CT (DeRubeis, et al., 1990). CT for depression is hypothesized to exert its effect by changing the depressed individual's automatic thoughts, (i. e., implicit thoughts that serve to exacerbate depression). Monitoring automatic, dysfunctional thoughts is an important component in CT in both alerting the client to their presence and measuring their change and progress in therapy. Monitored and disputed automatic thoughts are typically recorded in a homework form called the Daily Record of Dysfunctional Thoughts (Beck, et al., 1979).

Self-Administered Optimism Training (SOT; Fresco & Craighead, 1993) bears some resemblance to CT but incorporates instead questions relating to the causes of both the best and worst events of a given day. Similar to the self-monitoring and disputation in CT, SOT posits that increased reflection on the cause of an event will foster more objective and adaptive alternate causes.

Given that self-monitoring and cognitive disputation demonstrate efficacy in the context of CT, the present study sought to create analogs to these tasks that aimed to identify and target pessimistic explanations for daily events using a short-term, cost-effective, and minimally supervised psychoeducational protocol.

ABSTRACT

A pessimistic attributional style has been shown to be a robust risk factor in the future occurrence of a depressive disorder. One-hundred thirteen college students with a pessimistic attributional style were identified from a larger screening sample that completed measures of attributional style, depression, and physical health symptoms. Participants were randomly assigned to Self-Administered Optimism Training (SOT; $n = 53$) or a no-treatment control group ($n = 60$). In the SOT condition, participants received 10 minutes of instruction regarding self-monitoring of how they assigned causes to events in their lives and "brain-storming" alternate causes, and then sent off to record daily diaries that captured this information every day for 28 days. Participants returned their completed diaries each week. Approximately six weeks after this 28-day period all participants were re-assessed using identical instruments. SOT participants demonstrated significant drops in explanatory style (Cohen's $f = .44$). Inspection of the relationship between cognitive change and depression symptom change indicated that improvements in the former resulted in improvements in the latter for the SOT group, but not the control group. These findings correspond to medium effect sizes.

METHODS

Participants

- 113 undergraduate students
- Pessimistic upper quartile of students (using EASQ) from a larger screening sample were contacted to participate
- 22% male, 78% female
- 2% Asian, 6% African American, 80% Caucasian, 12% Other
- Participants ranged from 17-38 years of age ($M = 19.23$, $SD = 2.8$)

Measures

- Expanded Attributional Style Questionnaire (EASQ; Peterson & Villanova, 1988)
- Beck Depression Inventory (BDI; Beck, Rush, Shaw, & Emery, 1979)
- Daily Attributions Questionnaire (DAQ; Fresco & Craighead, 1993)

RESULTS

Repeated-Measures ANOVA utilizing the Time 1 and Time 2 data revealed:

- Significant main effect for Group, $F(1,110)=43.94$, $p < .001$, and Time x Group interaction, $F(1,110)=9.24$, $p = .003$, $f = .48$ for attributional style (Fig. 1)
- Significant main effect for Group, $F(1,110) = 4.88$, $p = .03$, but no Time x Group interaction, $F(1,110) = .003$, $p = .96$, for depression, $F(1,110) = 1.28$, ns , $f = .11$
- SOT participants who experienced cognitive change (cognitive responders) evidenced larger reductions in depressive symptoms as compared to SOT cognitive nonresponders, $F(1, 57) = 4.20$, $p = .04$. This finding approached conventions for a medium effect ($f = .20$) (Fig. 2).

To further examine attributional style as a moderator of outcome in cognitive treatments for depression, hierarchical linear regression was used according to the convention of DeRubeis et al. (1990), with the residual change in depression from Time 1 to Time 2 as the dependent variable. Residual change in attributional style and group (treatment or control) were predictors entered in step one, with their interaction entered in the second step. This final term represents the differential prediction of change in depression by cognitive change between the two groups, and if significant would indicate the different processes of change that was predicted between the groups. As predicted, the interaction term was significant and corresponded to a small-to-medium effect (see Table 1). Inspection of the correlations between residual change in attributional style and residual depression change between the treatment and control groups indicates that the relation between these two variables was stronger in the SOT ($r = .23$) than the control group ($r = -.25$).

Repeated-Measures ANOVA utilizing the 28-day DASQ data revealed significant main effect for both Time, $F(3,50) = 2.92$, $p = .04$, $f = .42$ and initial vs. "Brainstormed" ratings, $F(1,52) = 27.36$, $p < .001$, $f = .73$ and a trend for their interaction, $F(3,50) = 2.71$, $p = .05$, $f = .40$ although one corresponding to a large effect size (Fig. 4).

Hierarchical linear modeling (HLM) was utilized in addition to repeated-measures ANOVA to detect the contribution of the different sources of report. The HLM results agreed with the results found using Repeated-Measures ANOVA and indicated that the source of the rating contributed neither to pre-treatment attributional style ($\beta 01 = .094$, $SE = .153$, $t = .61$, ns) nor to the rate of change in pessimism over the 28 days ($\beta 11 = -.002$, $SE = .003$, $t = -.74$, ns). Stated more simply, SOT was found to reduce pessimism at equal rates regardless of the source of report (either the participant or CAVE coder), and pre-treatment group differences as a function of source of report does not appear to explain the increased drop in pessimism for the SOT group.

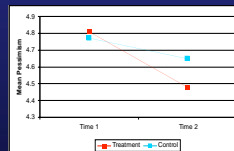


Fig. 1

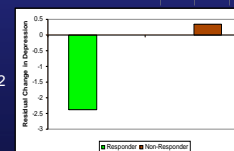


Fig. 2

Variable	B	SE B	t	Cohen's F
Step 1				
Cognitive Change	.77	1.21	.66	.01
Time	-.76	.60	-.86	.01
Step 2				
Cog. Change x Time	1.69	2.63	.63	.06

Table 1

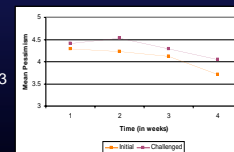


Fig. 3

DISCUSSION

Findings support our hypothesis that SOT results in significant drops in pessimism, in addition:

- SOT participants with low Time 2 Depression evidenced larger drops in pessimism as compared to Control participants
- Counter to our expectations, "brainstormed" ratings were higher in pessimism than initial ones across all time points; although speculative, one possible explanation for this finding is the observation that a pessimistic attributional style is associated with ruminative responses to stress (Zullow & Seligman, 1990). The process of self-monitoring and attributional challenging may engage this ruminative process in the short-run, even though the findings indicated an overall drop in pessimism over time.

Limitations

- Participants consisted of relatively high-functioning college students, resulting in uncertain generalizability to the general public
- The lack of a long-term follow-up leaves open the question of whether or not SOT results in long-term resilience to depressive episodes
- Without measures such as rumination, questions as to the mechanisms of SOT remain unanswered

Future Studies

- Replicating the current study utilizing a more representative population, with long-term follow-up and assessment of clinical depressive episodes
- Research has shown that increasing a wider awareness of context can prevent the effects of a negative mood prime (Watkins, et al., 2003). Future research will explore if the use of a similarly brief, cost-effective intervention can increase this awareness and confer similar benefits to SOT

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