

# The Role of Optimism as a Protective Factor in the Relationships Between Dysfunctional Attitudes, Depression, and Suicide

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## Introduction

There is much research that has documented risk factors for depression and suicide. For instance, Beck's (1963, 1985) model suggests that dysfunctional views of the self, world, and future confer risk for depression and suicide. These attitudes have been found to predict depression, suicidal ideation, and suicide attempts in a diverse range of people over periods of time as long as 20 years (See Conner et al, 2001 for a review). Although there is much support for dysfunctional attitudes as a risk factor, there is a need for research examining protective factors, since many of those who are at risk do not become depressed or suicidal. The current study will specifically examine dispositional optimism, a generalized positive outcome expectancy, as a potential protective factor that moderates the relationships between dysfunctional attitudes, suicide, and depression.

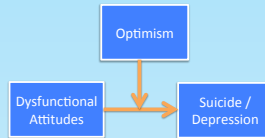
Hirsch and Conner (2006) found support for explanatory, but not dispositional, optimism in a moderational model. Hirsch, Conner, & Duberstein (2007) found support for a direct effect optimism as a protective factor in suicide and depression. Although they did not directly examine dispositional optimism as a moderator, they showed that it inversely predicted suicidal ideation when controlling for hopelessness.

The present study will build upon these previous studies by testing Hirsch and Conner's (2006) hypothesis that dispositional optimism moderates the relationship between dysfunctional attitudes and depression. In addition, we will expand these hypotheses to include depression as an outcome variable. We would expect that the impact of dysfunctional attitudes on depression and suicide will be far smaller in individuals who are relatively higher in dispositional optimism than in those who are lower.

## Hypotheses:

Hypothesis 1: Dispositional optimism will moderate the relationship between dysfunctional attitudes and depression.

Hypothesis 2: Dispositional optimism will moderate the relationship between dysfunctional attitudes and perceived suicide risk.



## Method

### Participants and Procedure

The present sample included 92 college students (75% female) enrolled at a diverse suburban university. The sample demographics were as follows: 48.6% Caucasian; 20.2% Asian; 14.5% African American; 1.7% American Indian; and 15% reported other or no answer. Participants completed the measures as part of a larger study in exchange for extra course credit.

### Measures

Dysfunctional attitudes were measured using the Dysfunctional Attitudes Scale (DAS; Weisman & Beck, 1978). The DAS is a 40-item self-report measure used to measure the presence and severity of maladaptive attitudes and beliefs in accordance with Beck's Cognitive Triad.

Dispositional optimism was measured using the Life Orientation Test – Revised (LOT-R; Scheier, Carver, & Bridges, 1994). The LOT-R is a 10-item, self-report measure that assesses expectancies for positive and negative outcomes for generalized situations.

Depression was measured using the depression subscale of the Brief Symptom Inventory (BSI; Derogatis, 1993).

## Measures (continued)

Suicide risk was calculated using a composite of several items from the SITBI that assessed self-reported perceptions of suicide risk. Participants were asked to rate their likelihood of having future suicide ideation and likelihood of making a suicide plan, attempt, or gesture. A similar method of creating a composite suicide risk variable from clinician-administered interviews has been used in other studies (see Abramson et al., 1998). Data collection errors prevented Beck Suicide Scale data, which was also collected in this study, to be used for the entire sample. However, for the available participants, BSS and SITBI likelihood of suicide showed a significant correlation ( $r = .39$ ), suggesting high convergent validity between the two measures.

## Results

Means, standard deviations, and intercorrelations of all study variables are reported in table 1.

Table 1. Means, standard deviations, and intercorrelations of all study variables

	DAS	LOT-R	BSI	SITBI
DAS Dysfunctional Attitudes	-			
LOT-R Optimism	-.46***	-		
BSI Depression	.62***	-.57***	-	
SITBI Likelihood of Future Ideation	.40***	-.34***	.44***	-
Mean	124.21	21.28	1.61	0.71
SD	28.45	4.94	0.62	1.80

Note. DAS = Dysfunctional Attitudes Scale; LOT-R = Life Orientation Test, Revised; BSI = Brief Symptom Inventory; SITBI = Self Injurious Thoughts and Behaviors Interview. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Hierarchical linear regression analyses were conducted to determine the ability of optimism to moderate the relationship between dysfunctional attitudes and suicide or depression. LOT-R and DAS scores were entered into the first step and the interaction term was entered into the second step. All variables in the interaction term were standardized according to the recommendations of Aiken and West (1991). Table 2 shows the results of these analyses, table 3 shows the change statistics, and figures 1 and 2 show the plot that results from probing these interactions.

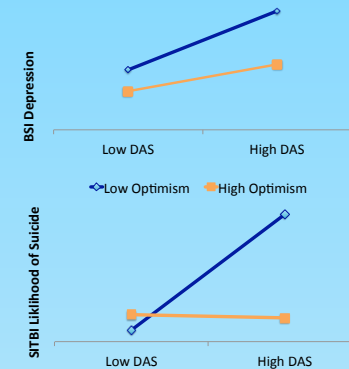
When examining these plots, it shows that for those who have high levels of dysfunctional attitudes, having high levels of optimism will predict lower levels of depression symptomatology and self-reported risk for suicide.

Table 2. Results of linear regression analyses on depression, anxiety, and comorbid symptoms

	Depression			Suicide		
	B	SE B	$\beta$	B	SE B	$\beta$
Step 1						
LOT-R Optimism	-.21***	.05	-.36	-.387**	.146	-.210
DAS Dysfunctional Attitudes	.27***	.05	.47	.549***	.145	.300
Step 2						
DAS x LOT-R	-.09**	.04	-.17	-.452***	.125	-.259

Note. DAS = Dysfunctional Attitudes Scale; LOT-R = Life Orientation Test, Revised. \*  $p < .05$ , \*\*  $p < .01$ , \*\*\*  $p < .001$ .

Figures 1 & 2. Graphs of interaction plots for all three outcome variables



## Discussion:

This study provides further evidence that dispositional optimism functions as a protective factor in depression and suicide. This study expands upon the work of Hirsch, Conner, & Duberstein (2007) and Hirsch & Conner (2006) by using a moderational model of optimism on the relationship between dysfunctional attitudes and suicidality and depression. This knowledge is particularly important because optimism can be modified (Seligman, Schulman, DeRubeis, & Hollon, 1999), suggesting the possibility of creating intervention programs that can reduce risk for depression and suicide.

Although there was strong support for optimism as a protective factor in depression and suicide separately, it is important to differentiate the two outcomes. This is important because if depression and suicide are overlapping, or partially overlapping constructs, there would be little merit in exploring the difference between the two. Rather, future studies should focus on universal protective factors or protective factors for the shared features of depression and suicide. In this study, when controlling for depression and suicide in tests of protection from suicide and depression, respectively, the interaction between optimism and dysfunctional attitudes became marginally significant with smaller beta weights. This suggests that depression and suicide share some features but are not completely overlapping and that optimism may be a protective factor to these shared features.

## Limitations

This study's most notable limitation was the use of a non-empirically validated outcome measure. However, it is important to note that this measure did correlate with the available Beck Suicide Scale data. Future studies should examine this relationship using an empirically validated measure of suicidality.

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