

Difficulties in Emotion Regulation: A Transdiagnostic Predictor of Adolescent Depression and Anxiety

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BACKGROUND

- Emotion regulation (ER) is a multi-dimensional construct important in the development and maintenance of psychopathology (Sloan et al., 2017).
- ER involves the following dimensions: emotional clarity, the awareness and acceptance of emotions, the ability to use adaptive ER strategies, as well as the ability to control impulsive behaviors and engage in goal-directed behavior when experiencing negative emotions. Difficulties in ER, or overall emotion dysregulation, is defined as deficits in the listed abilities (Gratz & Roemer, 2004).
- Deficits in certain ER facets predict increased symptoms of anxiety (Schneider, Arch, Landy, & Hankin, 2016) and depression (Kranzler et al., 2016) in children and adolescents.
- Most research on ER has been cross-sectional (Compas et al., 2017) and has included limited examination of ER's multiple dimensions (D'Agostino et al., 2017).
- Understanding risk factors for youth psychopathology, including difficulties in ER, is a crucial step to inform the development and implementation of prevention programs (Beardslee, Gladstone, & O'Connor, 2012).

OBJECTIVES

- This study examines the concurrent and longitudinal associations between ER dimensions and adolescents' depression and anxiety symptoms in a non-clinical sample.

METHODS

Procedure

- Pre-intervention data from a larger ongoing longitudinal RCT were used.
- Adolescents completed measures at baseline (n = 74) and 9 months later (n = 57).

Measures

- A brief version of the Difficulties in Emotion Regulation Scale (DERS; Gratz & Roemer, 2004) measured overall ER as well as six dimensions of ER.
 - The DERS has a total score and six subscales in which higher scores indicate greater difficulties in ER.
 - Based on prior psychometric research, we excluded the emotional awareness subscale from the DERS total score (Bardeen et al., 2012).
- The Children's Depression Inventory (CDI; Kovacs, 2003) and the Multidimensional Anxiety Scale for Children (MASC; March et al., 1997) measured depression and anxiety symptoms.

Analyses

- We used bivariate correlations to assess the relationships between the different DERS subscales and symptoms.
- Two hierarchical regression analyses examined the association between total ER difficulties and symptoms of depression and anxiety at baseline and 9 months later, after adjusting for demographic covariates and baseline symptoms (9-month model).

RESULTS

- The DERS total score and several subscale scores were significantly correlated with depression and anxiety symptoms (see Table 1).
- Greater ER difficulties were associated with more severe depression symptoms in the baseline model ($\beta = .51, p < .05$) and in the 9-month model ($\beta = .41, p < .05$; see Table 2).
- Greater ER difficulties were associated with more severe anxiety symptoms in the baseline model ($\beta = .44, p < .05$) and in the 9-month model ($\beta = .28, p < .05$; see Table 3).

CONCLUSIONS & LIMITATIONS

- ER difficulties significantly predicted depression and anxiety symptoms concurrently and longitudinally, over and above variance accounted for by demographic covariates and baseline symptoms.
- Findings suggest that ER difficulties are an important target for programs aimed at the prevention of depression and anxiety.
- Limitations include the single time point measure of ER, which precluded tests of bidirectionality between ER and symptoms.

Table 1. Correlation Analysis Between DERS Total Scores, DERS Subscales, CDI Total Scores, and MASC Total Scores

	DERS	Awareness	Nonacceptance	Goals	Impulse	Clarity	Strategies
CDI at Baseline	.53**	-.09	.33**	.50**	.40**	.33**	.49**
CDI at 9 months	.53**	-.06	.38**	.43**	.22	.36**	.51**
MASC at Baseline	.42**	-.30**	.30**	.35**	.28	.26*	.43**
MASC at 9 months	.32*	-.10	.15	.28*	.10	.23	.40**

Notes. DERS = DERS Total Score without Awareness subscale; Awareness = DERS, Lack of Emotional Awareness Subscale; Nonacceptance = DERS, Emotional Nonacceptance Subscale; Goals = DERS, Lack of Goal-Directed Behaviors Subscale; Impulse = DERS, Impulse Control Difficulties Subscale; Clarity = DERS, Lack of Emotional Clarity Subscale; Strategies = DERS, Lack of Emotion Regulation Strategies Subscale.

* $p < .05$ (two tailed).

** $p < .01$ (two tailed).

Table 2. Results of Hierarchical Regression Analyses for Variables Predicting CDI Scores

Variable	Baseline				9 months			
	β	95% CI	ΔR^2	p	β	95% CI	ΔR^2	p
Step 1			.05	NS			.34	< .05
Age	.14	[-.41, 1.46]		.27	-.03	[-1.08, .84]		.81
Sex	.02	[-2.40, 2.83]		.87	-.19	[-4.70, .50]		.11
SES	.20	[-.42, 4.74]		.10	.06	[-1.85, 3.24]		.59
Race	-.03	[-3.07, 2.45]		.83	-.01	[-2.81, 2.61]		.94
CDI	--	--		--	.57	[.43, 1.01]		< .05
Step 2			.25	< .05			.12	< .05
Age	.08	[-4.9, 1.13]		.43	-.13	[-1.42, .40]		.27
Sex	.01	[-2.15, 2.38]		.92	-.24	[-5.16, -.32]		.03
SES	.09	[-1.32, 3.29]		.40	.03	[-2.00, 2.70]		.77
Race	.01	[-2.24, 2.57]		.89	-.01	[2.54, 2.43]		.97
CDI	--	--		--	.37	[.17, .78]		< .05
DERS	.51	[.18, .42]		< .05	.41	[.11, .45]		< .05

Notes. For sex, female coded as 0 and male coded as 1. For SES, below median income coded as 0 and at or above median income coded as 1. For race, white coded as 0 and non-white coded as 1. CDI = CDI Total Score; DERS = DERS Total Score without Awareness subscale.

Table 3. Results of Hierarchical Regression Analyses for Variables Predicting MASC Scores

Variable	Baseline				9 months			
	β	95% CI	ΔR^2	p	β	95% CI	ΔR^2	p
Step 1			.10	NS			.40	< .05
Age	-.20	[-4.88, .39]		.09	-.11	[-3.66, 1.27]		.34
Sex	-.21	[-14.13, .66]		.07	-.19	[-12.15, .83]		.09
SES	.13	[-3.13, 11.45]		.26	.03	[5.58, 7.19]		.80
Race	.02	[-7.07, 8.54]		.85	-.04	[-7.96, 5.55]		.72
MASC	--	--		--	.57	[.34, .80]		< .05
Step 2			.18	< .05			.07	< .05
Age	-.24	[-5.12, -.35]		.03	-.20	[-4.66, .30]		.08
Sex	-.22	[-13.65, -.31]		.04	-.25	[13.51, -.91]		.03
SES	.04	[-5.53, 7.94]		.722	.00	[-6.04, 6.18]		.98
Race	.06	[-5.15, 8.98]		.59	-.04	[-7.61, 5.26]		.72
MASC	--	--		--	.48	[.25, .71]		< .05
DERS	.44	[.38, 1.09]		< .05	.28	[.10, .92]		< .05

Notes. For sex, female coded as 0 and male coded as 1. For SES, below median income coded as 0 and at or above median income coded as 1. For race, white coded as 0 and non-white coded as 1. MASC = MASC Total Score; DERS = DERS Total Score without Awareness subscale.