

ABSTRACT

Individuals use emotional regulation (ER) strategies when dealing with various life circumstances. However, the methods individuals use to regulate emotions can impact life satisfaction and stress levels.¹ Two common ER strategies include cognitive reappraisal (changing how one thinks about an event) and expression suppression (concealing one's reaction). Past studies have shown cognitive reappraisal predicts higher life satisfaction and lower stress as compared to expression suppression. The current study investigated these relationships using data obtained from a doctoral dissertation study involving a national convenience sample of young adults completing the survey on the internet (N = 561). We hypothesized that emotion regulation strategies used would predict reported life satisfaction and perceived stress. Results of multiple regression analyses revealed that cognitive reappraisal positively predicted life satisfaction ($\beta = .33, p < .001$) and negatively predicted perceived stress ($\beta = -.22, p < .001$). Expression suppression had an inverse relation with both outcomes [life satisfaction ($\beta = -.18, p < .001$), perceived stress ($\beta = .18, p < .001$)]. These results support the importance of understanding young adults' emotion regulation strategies in order to assist them to manage stress and build lives that have higher levels of emotional well-being.

INTRODUCTION

Individuals regulate their emotions in many different ways; two specific ER strategies are²:

• Cognitive reappraisal, which involves modifying how one views a situation.

• Expressive suppression, which involves concealing one's emotional response to a situation.

Some forms of emotional regulation are more beneficial than others due to the impact they can have on personal and social consequences. For example, those who use expressive suppression may experience distractedness, reduced responsiveness, and heightened blood pressure in social interactions compared with those that use cognitive reappraisal.³

In another study, cognitive reappraisal had a significant positive correlation with positive indicators of mental health (e.g., life satisfaction and positive affect); whereas, expressive suppression was correlated with negative indicators (e.g., depression, anxiety, and negative affect).⁴

Ability to regulate emotions is also associated with lower reported perceived stress. Furthermore, emotional regulation mediates the relationship between trait mindfulness and perceived stress across age.⁵

Emotional regulation moderates the relationship between perceived stress and well-being (happiness/depression) in adult males, but not females. Specifically, males who reported high stress and high emotional regulation also reported higher levels of happiness and lower levels of depressive symptoms.⁶

Taken together, these studies illustrate that it is important to understand how a person regulates his or her emotions and the role they have in stress and life satisfaction.

Comparing Emotional Regulation Strategies to Predict Satisfaction with Life and Perceived Stress

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PARTICIPANTS

- Data were derived from a national sample of young adults (N=561) who completed an online survey. Participants were recruited via online advertising and through fliers located at college campuses and in the community.
- See Table 1 for demographic information.

Demographics	N = 561
Gender	
Male	58.5%
Other (e.g., gender non-conforming)	1.2%
Age (Mean)	20 (SD = 2.2)
Race	
White (Non-Hispanic)	50.6%
Black/African American	11.0%
Hispanic/Latino	13.7%
Other	23.8%
Environment	
Urban	45.5%
Rural	16.2%
Suburban	36.7%
Education	
Less than high school	1.2%
High school graduate	22.5%
Some college	53.7%
Bachelor's degree	18.9%
Graduate/professional degree	2.9%
Engagement in Mindfulness Practices	
Yes	23.7%

METHODS

- We examined the relationship between emotion regulation strategies, cognitive reappraisal and expressive suppression, on reported life satisfaction and perceived stress.
- Multiple Linear Regression with hierarchical entry was used to examine the effects of the emotion regulation strategies, Cognitive Reappraisal and Expression Suppression, on Perceived Stress and Life Satisfaction.
 - Covariates (gender and age) were entered in Step 1
 - Predictors (Cognitive Reappraisal and Expression Suppression) were entered in Step 2

Measures / Variables:

- Covariates:**
 - Gender:** Categorical variable; Responses were coded into four categories (1=male, 2=female, 3=other (e.g., gender non-conforming), 4=refused to answer)
 - Age:** Categorical variable; Responses option were coded into 18 distinct age spans (e.g., 17 and under and 71 and older).

- Emotion Regulation Questionnaire:**

10-item questionnaire; Responses recorded on a 7-point Likert scale (1=strongly disagree, 7=strongly agree)

- Cognitive Reappraisal Subscale (6-items):**

Sample item: "When I want to feel more positive emotion (such as joy or amusement), I change what I'm thinking about."

- Expression Suppression Subscale (4-items):**

Sample item: "I control my emotions by not expressing them?"

- Perceived Stress Scale:**

10-item questionnaire; Responses recorded on a 5-point Likert scale (0=Never, 4=Very often)

Sample item: "In the last month, how often have you felt difficulties were piling up so high that you could not overcome them?"

- Satisfaction with Life Scale:**

5-item questionnaire; Responses recorded on a 7-point Likert scale (1=strongly disagree, 7=strongly agree)

Sample item: "In most ways my life is close to ideal."

RESULTS

Perceived Stress

Overall, emotional regulation strategies accounted for 7% of the variance in perceived stress, $R^2 = .07, F(2, 556) = 20.97, p < 0.001$

Table 2. *Relations of Emotion Regulation Predictors with Perceived Stress*

Predictor	Perceived Stress	
	B	t-value
Step 1 (Covariates) †		
Gender	0.15	3.50
Age	-0.05	-1.19*
R^2	.02*	
Step 2 ‡		
Cognitive Reappraisal	-0.22	-5.41**
Expressive Suppression	0.18	4.26**
ΔR^2	.07**	

* $p < .05$; ** $p < .001$ N = 561

†At Steps 1 & 2, B standardized coefficients and t-values represent effects at that respective step, not for full model

Each predictor of interest had significant, independent contributions to perceived stress.

- In regards to cognitive reappraisal, for every one standard deviation increase in endorsement of cognitive reappraisal strategies, there was a 0.22 standard deviation decrease in perceived stress above and beyond the other predictors in the model, $B = 0.22, t(556) = -5.41, p < .001, f^2 = .05$.

- Alternatively, in regards to expressive suppression, for every one standard deviation increase in endorsement of expressive suppression there was a 0.18 increase in perceived stress above and beyond the other predictors in the model, $B = 0.18, t(556) = 4.26, p < .001, f^2 = .03$.

Life Satisfaction

Overall emotional regulation strategies accounted for 12.3% of the variance in life satisfaction $R^2 = .12, F(2, 556) = 39.21, p < .001$.

Table 3. *Relations of Emotion Regulation Predictors with Life Satisfaction*

Predictor	Life Satisfaction	
	B	t-value
Step 1 (Covariates) †		
Gender	0.01	0.17
Age	-0.05	-1.13
R^2	.002	
Step 2 ‡		
Cognitive Reappraisal	0.33	8.24**
Expressive Suppression	-0.18	-4.35**
ΔR^2	.12**	

* $p < .05$; ** $p < .001$ N = 561

†At Steps 1 & 2, B standardized coefficients and t-values represent effects at that respective step, not for full model

Each predictor of interest had significant, independent contributions to life satisfaction.

- In regards to cognitive reappraisal, for every one standard deviation increase in endorsement of cognitive reappraisal strategies, there was a 0.33 standard deviation increase in life satisfaction above and beyond the other predictors in the model, $B = 0.33, t(556) = 8.24, p < .001, f^2 = .12$.

- Alternatively, in regards to expressive suppression, for every one standard deviation increase in endorsement of expressive suppression, there was a 0.18 decrease in life satisfaction, $B = -0.18, t(556) = -4.35, p < .001, f^2 = .03$.

DISCUSSION

- Results from this study suggest that individuals who use cognitive reappraisal report higher levels of life satisfaction and lower levels of perceived stress, while those who use expression suppression report opposite outcomes.
- Compared to expression suppression, cognitive reappraisal has been found to be more adaptive in terms of mental health, well-being, and stress outcomes.^{3,4,5}
- Young adults could benefit from learning constructive ways to regulate their emotions, such as cognitive reappraisal, in order to reduce stress and improve life satisfaction.
- A limitation of this study is that the relationships reported between variables is based on correlational data. Clinical trials involving the use of cognitive reappraisal and expressive suppression are encouraged to support causation claims.

Future Directions:

- Data from this study was collected at one time period; however, it may be valuable to follow young adults over time to determine any changes in outcomes.
- The practice of mindfulness, found to be linked with positive reappraisal in older adults⁷, future studies should examine whether mindfulness would be a relevant activity in increasing cognitive reappraisal in young adults.

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Presented at the 20th Annual Undergraduate Research and Creative Achievement