 DOI: 10.18231/2455-8559.2017.0018

A Study to Examine the Relationship between Emotion Regulation and Resilience among First-year Undergraduates

Pavani Narukurthi[1], Raghuram Macharapu[2,*], Vishnu Gade[3], Pramod KR Mallepalli[4], Ravulapati Sateesh Babu[5]

[1]Post Graduate, [2]Assocaite Professor, [3]Resident, [4]Professor & HOD, [5]Professor, Dept. of Psychiatry, Mamata Medical College, Khammam

***Corresponding Author:**
Email: raghuram.macharapu@gmail.com

Abstract

Introduction: Transitioning to undergraduate college life can be stressful as students have to make multiple adjustments. Emotional Regulation (ER) plays a crucial role in the psychosocial development of college students. Adaptive ER strategies are important for developing resilience.

Objective: To examine the relationship between emotional regulation and resilience among first-year undergraduates.

Methodology: The sample included first-year undergraduate students from respective colleges (Medical, Engineering and Degree), who completed the following instruments; Emotion Regulation Questionnaire (ERQ; Gross and John, 2003) and Brief Resilience Scale (BRS; Smith, Dalen, Wiggins, Tooley, Christopher & Bernard, 2008). Statistical analyses were carried out and the findings were discussed by referring to relevant literature.

Results: A significant positive correlation was obtained between cognitive reappraisal and resilience. On the other hand, expressive suppression demonstrated a significant negative correlation with both cognitive reappraisal and resilience.

Conclusion: Effective life skills training program is necessary to battle various psychological in competencies.

Keywords: Emotional, Regulation, Resilience, College Students, Life Skills Training.

Introduction

College life is awaited by every student both in excitement and awe. Some look towards a fun filled life with lesser restrictions and some fear a new way of teaching where self-study takes over other forms of coaching. The students have to cope with a changing lifestyle and a changed friend circle. Old friends move out and new people join in. This transition may be difficult for some in the first year. Some cope well by making new contacts and developing a wider social network. However, other students may experience homesickness being away from their families. Some get stressed in a new atmosphere and thus find it difficult to adjust. Some students also tend to fall behind academically. Anxiety and depression levels rise among this student which leads to physical illnesses as well.

Majority of students get an insight into adulthood as this transition marks substantial growth in their thought process hence bringing them closer to maturation levels. The major transition which a student goes through is his adaptation level. One learns to self-regulate oneself, to modulate emotions, thoughts, and behaviours that over time help to maximize adaptive adjustments. Those who develop enough maturity to self-regulate themselves thrive and others experience major difficulties during the transition.

Cognitive Reappraisal and expressive suppression are emotion regulation strategies. Studies have found that suppressing emotions is related to a number of disorders, including generalized anxiety disorder, specific phobias, depression, bipolar disorder, post-traumatic stress disorder (PTSD), substance abuse disorders, and eating disorders.

Baker et al found that individuals in the panic disorder group, self-reported greater emotional processing difficulties marked by greater self-reported suppression of emotional experiences than the control group.[(3)] Gruber et al found that patients with bipolar disorder reported greater spontaneous use of suppression while viewing emotion-inducing film clips compared to healthy controls.[(4)]

Not only cross-sectional studies but also longitudinal studies have shown that the maladaptive emotional regulation, including suppression is predictive of a later self-reported psychopathology like anxiety, depression and substance abuse. These studies suggest that suppression is a maladaptive emotion regulation strategy associated with the onset and maintenance of various forms of psychopathology.[(5,6,8)] In contrast to suppression, cognitive reappraisal is thought to be an adaptive and effective emotion regulation strategy that is directly linked to psychological well-being.[(9)] The relationship of cognitive emotional regulation and psychopathology seems to hold true across ages and disorders. For instance, in a study regarding the relationship between cognitive emotion regulation, coping strategies (including reappraisal) and depressive symptoms in an elderly community sample, it was found that the individuals with more symptoms of depression reported lower trait-reappraisal than that of the individuals with less depressive symptoms.[(10)] Similarly, Henry et al

found that greater self-reported use of reappraisal was associated with lesser self-reported depression and greater self-reported social-functioning in schizophrenic patients.[11]

In another study examining the role of emotion regulation in determining symptom improvement in a group of outpatients undergoing treatment for social anxiety disorder, Mocovitch et al found that the learned ability to use reappraisal to regulate emotions helped in the overall reduction of the severity of social anxiety symptoms during treatment.[12] Boden et al found that higher trait-reappraisal was associated with less severe PTSD symptoms in a sample of military veterans undergoing PTSD treatment.[13] These studies suggest that the inability to effectively use adaptive emotion regulation (e.g., reappraisal) to down-regulate negative emotion is associated with poorer outcomes for mental health.[5] Specifically, studies have shown that lesser use of reappraisal is associated with an increase in the severity and number of symptoms of depression, anxiety disorders (e.g., PTSD) and borderline personality disorder.[14]

Finally, the inability to effectively use adaptive emotion regulation (e.g., reappraisal) has been associated with a number of additional maladaptive behaviours including; binge drinking/eating, purging, and/or restricting. Individuals that have cognitive reappraisal as an emotion regulation strategy are able to effectively manage emotions.[15] Emotion regulation strategies that reduce negative emotion and increase positive emotion may be crucial in promoting resilience.[16] Resilient people have effective coping skills making it easy to deal with stress.[18]

This study proposes to examine the relationship between emotional regulation and self-resilience to determine how changes in these skills relate to the adjustment to college in a sample of first-year undergraduates (Medical, Engineering and Degree college respectively).

Methodology

Place of study: A study was conducted in three different colleges (Medical, Engineering and Degree) in Khammam, Telangana.

Study period: The study period is from September 2016 to March 2017.

Study sample: A total of 250 first year students were approached in the age group of 18-20 years. 220 students agreed to participate and the questionnaires were handed out with a verbal introduction and they were asked to rate their responses for the two scales used in this study.

Study design: Cross sectional college based study.

Inclusion criteria: All the first-year undergraduate students willing to give informed consent were included in the study.

Exclusion criteria: Students that did not agree to participate in the study and the students' other than first-year were excluded from the study.

Materials & Methods

Following questionnaires were administered to the subjects as described below;

Emotion Regulation Questionnaire (ERQ; Gross & John, 2003) – This is a 10-item scale, measuring the tendency of individuals to regulate their emotions in two ways; Cognitive Reappraisal and Expressive Suppression. Responses are rated on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). Items 1, 3, 5, 7, 8, 10 make up the Cognitive Reappraisal facet. Items 2, 4, 6, 9 make up the Expressive Suppression facet. Scoring is kept continuous. Each facet's scoring is kept separate.

Brief Resilience Scale (BRS: Smith et al., 2008) – This scale has 6 items with a possible score of the responses varying from 1-5 for all six items. The sum ranges from 6-30 which is then divided by the total number of questions answered (6) to get a final score.

BRS score	Interpretation
1.00-2.99	Low resilience
3.00-4.30	Normal resilience
4.31-5.00	High resilience

Semi structured proforma for socio-demographic profile: Age, Education, Gender, Socioeconomic status, and Religion were documented.

Procedure

The students were provided with a general introduction regarding the nature and purpose of the study. Confidentiality was assured and voluntary nature of the study was explained. Students who were willing to participate in the study were taken in for the study. A total of 250 students were approached and 220 agreed to complete the questionnaire.

This study was approved by the Ethics Committee of Mamata Medical College and General Hospital.

Statistical Analysis

The data from both the scales was coded using Microsoft Excel- spreadsheet. All the entries were double checked for any possible keyboard error. Correlations were calculated using Karl Pearson's Coefficient of Correlation for determining the relationship between Emotional Regulation and Resilience. Statistical analysis was done using Statistical Package for Social Sciences (SPSS) for Windows, version 19.

Results

This research study identified the responses of 220 participants chosen as a sample for the research about the relationship between two Emotional Regulation strategies (cognitive reappraisal and expressive suppression) and Resilience).

Table 1: Socio-demographic characteristics of the study population

Variables	N(%)
Education	
Medical	88 (40)
Engineering	80(36)
Degree	52 (24)
Gender	
Male	115 (52)
Female	105 (48)
SES*	
Low	27 (13)
Middle	171 (77)
Upper	22 (10)
Religion	
Hindu	157 (71)
Christian	46 (21)
Muslim	17 (8)

Mean age of the participants is 17.97 (± 3.01)
*Socioeconomic status

Table 2: Socio-demographic characteristics in individual groups

	Medical students	Engineering students	Degree students
Males	50	44	21
Females	38	36	31
Low SES	11	10	6
Middle SES	71	59	41
Upper SES	6	11	5
Hindu	62	60	35
Christian	15	17	14
Muslim	11	3	3

The majority of the study population are Hindu by religion. Most of the students belonged to middle socio-economic status.

Table 3: Mean and Standard Deviation scores of the variables among Medical, Engineering and Degree Undergraduate students (N=220)

Variable	Medical students	Engineering students	Degree students	F	p value
Resilience	3.05 ± 0.56	3.01 ± 0.533	3.13 ± 0.56	0.79	0.455
Cognitive Reappraisal	28.85 ± 5.68	28.85 ± 6.48	29.69 ± 6.05	0.381	0.683
Expressive Suppression	16.66 ± 5.01	17.52 ± 6.03*	14.33 ± 5.48	5.447	0.005

*<0.05

Cognitive reappraisal is associated with resilience on correlation and regression analysis. Expressive Suppression is significant among Engineering undergraduates.

Table 4: Correlation between resilience and the variables (Expressive suppression and cognitive reappraisal) (N=220)

	r value	p value
Resilience & Cognitive reappraisal	**0.216***	**0.001**
Resilience & Expressive suppression	0.036	0.589

*<0.05

Individuals with greater levels of Cognitive Reappraisal tend to be more resilient which helps them bounce back from hardships. Individuals with greater levels of expressive suppression had difficulty when exposed to new environment.

Table 5: Regression analysis of cognitive reappraisal and expressive suppression to resilience (N=220)

Variable	B value	p value
Cognitive Reappraisal	**0.216***	**0.001**
Expressive suppression	0.032	0.633

*<0.05

The number of variants in Cognitive Reappraisal approached significant to Resilience.
Cognitive Reappraisal accounted for 4% of variance in Resilience.
(F (df 2, 220) = 5.51, p = 0.001, adjusted r2= 0.039)

Table 6: Correlation between Gender and the Variables (Resilience, Cognitive reappraisal and Expressive suppression) (N=220)

	r value	p value
Gender & Resilience	0	1
Gender & Cognitive reappraisal	-0.011*	0.871
Gender & Expressive suppression	0.073**	0.276

*negative correlation but weak relationship
**positive correlation but weak relationship
p value is <0.05 and the result is not significant

Table 7: Correlation between SES* and the Variables (Resilience, Cognitive reappraisal and Expressive suppression)(N=220)

	r value	p value
SES & Resilience	0	1
SES & Cognitive reappraisal	0.032	0.633
SES & Expressive suppression	-0.084**	0.214

*Socioeconomic status
**negative correlation but weak relationship
p value is <0.05 and the result is not significant

Table 8: Correlation between Religion and the Variables (Resilience, Cognitive reappraisal and Expressive suppression) (N=220)

	r value	p value
Religion & Resilience	0	1
Religion & Cognitive reappraisal	0	1
Religion & Expressive suppression	-0.019*	0.779

*negative correlation but weak relationship
p value is <0.05 and the result is not significant

Discussion

Resilience and emotion regulation are vital developmental processes that change subtly or significantly through the exposure to stress.[18]

Cognitive reappraisal and Expressive suppression are two major emotion regulation strategies. Cognitive reappraisal is concerned with modifying the emotional impact of the situation through cognitive restructuring and expressive suppression entails preventing expression of current emotions. Emotion regulation refers to the attempts to influence the types of emotions people experience and how these emotions are expressed and experienced. It has been suggested that regulation efforts can be made by either up-regulating or down-regulating aspects of both positive and negative emotional episodes.[19] As well, processes of emotion regulation can be conscious or unconscious.[20] There has been plenty of research devoted in understanding how people regulate negative emotions as a way to cope with negative events, with relatively little attention given to the regulation of positive emotions.[21] This may not be altogether surprising, as the usual concern in everyday life and in clinical settings is to regulate distress, rather than to modify or maintain pleasant experiences. Recent research shows that people do engage in positive emotion regulation.[22]

Current study shows that the Cognitive Reappraisal is associated with Resilience on correlation and regression analysis. Expressive Suppression is significant among engineering undergraduates. Individuals with greater levels of Cognitive Reappraisal tend to be more resilient which helps them bounce back from hardships. Individuals with greater levels of expressive suppression had difficulty when exposed to new environment. More resilient people are able to "roll with the punches" and adapt to adversity without lasting difficulties, while less resilient people have a harder time with stress and life

Conclusion

Effective use of emotion regulation strategies to reduce negative emotion and increase positive emotion may be crucial in promoting resilience. Although the trait of resilience is much more than the emotion regulation ability, theory and existing literature on emotion regulation may help shed light on valuable strategies to create effective training programs. Considering the emotional aspect of an adverse event, investigating the benefits of emotion regulation strategies may help improve our understanding of resilience. Cognitive reappraisal results in healthier patterns of affect, social functioning, and well-being than Expressive suppression. Individuals with Cognitive Reappraisal as an emotion regulation strategy are more resilient.

Limitations

Smaller sample size; so, results cannot be generalised to the population. Further research can be conducted on a large sample.

Acknowledgements – Nil
Conflict of Interest – Nil
Source of Funding – Nil

References

1. Srivastava S, Tamir M, McGonigal KM, John OP, Gross JJ. The social costs of emotional suppression: A prospective study of the transition to college. Journal of personality and social psychology. 2009 Apr; 96(4):883.
2. Brown KW, Ryan RM, Creswell JD. Mindfulness: Theoretical foundations and evidence for its salutary effects. Psychological inquiry. 2007;18(4):211-37.
3. Berking M, Wupperman P. Emotion regulation and mental health: recent findings, current challenges, and future directions. Current opinion in psychiatry. 2012;25(2):128-34.

4. Campbell-Sills L, Barlow DH, Brown TA, Hofmann SG. Acceptability and suppression of negative emotion in anxiety and mood disorders. Emotion. 2006;6(4):587.
5. Wells A, Simons M. Metacognitive therapy. John Wiley & Sons, Ltd; 2009.
6. Nolen-Hoeksema S, Wisco BE, Lyubomirsky S. Rethinking rumination. Perspectives on psychological science. 2008;3(5):400-24.
7. Aldao A, Nolen-Hoeksema S, Schweizer S. Emotion-regulation strategies across psychopathology: A meta-analytic review. Clinical psychology review. 2010;30(2):217-37.
8. Shepherd L, Wild J. Emotion regulation, physiological arousal and PTSD symptoms in trauma-exposed individuals. Journal of behavior therapy and experimental psychiatry. 2014;45(3):360-7.
9. Ochsner KN, Gross JJ. The cognitive control of emotion. Trends in cognitive sciences. 2005;9(5):242-9.
10. Garnefski N, Kraaij V. Relationships between cognitive emotion regulation strategies and depressive symptoms: A comparative study of five specific samples. Personality and Individual differences. 2006;40(8):1659-69.
11. Kocovski NL, Fleming JE, Hawley LL, Huta V, Antony MM. Mindfulness and acceptance-based group therapy versus traditional cognitive behavioral group therapy for social anxiety disorder: A randomized controlled trial. Behaviour research and therapy. 2013;51(12):889-98.
12. Shepherd L, Wild J. Emotion regulation, physiological arousal and PTSD symptoms in trauma-exposed individuals. Journal of behavior therapy and experimental psychiatry. 2014;45(3):360-7.
13. Roberton T, Daffern M, Bucks RS. Emotion regulation and aggression. Aggression and violent behavior. 2012;17(1):72-82.
14. Maddux JE, Winstead BA, editors. Psychopathology: Foundations for a contemporary understanding. Routledge; 2015.
15. Berking M, Wupperman P. Emotion regulation and mental health: Recent findings, current challenges, and future directions. Current opinion in psychiatry. 2012;25(2):128-34.
16. Gross JJ, John OP. Individual differences in two emotion regulation processes: Implications for affect, relationships, and well-being. Journal of personality and social psychology. 2003;85(2):348.
17. Smith BW, Dalen J, Wiggins K, Tooley E, Christopher P, Bernard J. The brief resilience scale: assessing the ability to bounce back. International journal of behavioral medicine. 2008;15(3):194-200.
18. Crowell SE, Skidmore CR, Rau HK, Williams PG. Psychosocial stress, emotion regulation, and resilience in adolescence. InHandbook of adolescent health psychology Springer New York. pp. 129-141. 2013
19. Parrott WG. Beyond hedonism: Motives for inhibiting good moods and for maintaining bad moods.Prentice-Hall,Inc,1993.
20. Gross JJ. Antecedent-and response-focused emotion regulation: divergent consequences for experience, expression, and physiology. Journal of personality and social psychology. 1998;74(1):224.
21. Gross JJ. Emotion regulation: Past, present, future. Cognition & Emotion. 1999;13(5):551-73.
22. Gross JJ, Richards JM, John OP. Emotion regulation in everyday life. Emotion regulation in couples and families: Pathways to dysfunction and health. 2006;13-35.