

Emotional Regulation Among Psychology and Non-Psychology Studying College Students

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ABSTRACT

This study aimed to find significant differences among students studying psychology and non-psychology courses in the college and genders, for emotional regulation. Cognitive reappraisal and expressive suppression are the two tendencies to regulate emotions, as per Gross and John (1998). Emotional Regulation Questionnaire (ERQ) by Gross and Johns (1998) was used in this study. A total of 100 college students of the age 18-25 years participated in online survey, using Google forms, in which 50% belonged from both psychology and non-psychology studying streams, and 50% were male, 50% were female. The results showed that there is no significant difference for cognitive reappraisal among students studying psychology and non-psychology courses in the college and genders. However, the study found that students studying non-psychology courses have higher levels of expressive suppression, in comparison to students who are studying psychology. Also, there is a gender difference present with males having high tendency to use expressive suppression to regulate their emotions. The results suggest that the need for research to investigate the effect of course and gender on emotional regulation and other contributing factors effecting this variable.

Keywords: *Emotional regulation, Course Differences, Gender Differences*

Emotions are an inevitable part of our life. According to R. S Feldman (2011), emotions are feelings that generally have both physiological and cognitive elements and that influence behavior. In past, emotions were described as either basic inborn instincts, where emotions are physiological responses triggered by external events and lead to predictable patterns of activity in the brain and periphery (Allport, 1924; Ekman, 1972; Wilson-Mendenhall, Barrett, Simmons, & Barsalou, 2011). Other studies state emotions as direct products of people's appraisals of external events in relation to needs, goals, or concerns (Arnold, 1960; Frijda, 1986; Lazarus, 1991; Wilson-Mendenhall et al., 2011).

Emotion regulation refers to a person's strategies for managing their feelings, when they experience them, and how they feel and express them (Gross & John, 1998). Automatic or controlled, conscious or unconscious emotional regulation mechanisms may have an impact at one or more stages of the emotion-generating process (Gross & John, 1998). Gross (1998)

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proposed a process model of emotional regulation, consisting five families related to the dynamic emotional process where regulation takes place – situational selection, situational modification, attention deployment, cognitive change, and response modulation. In his model, Gross recognized first four families as four types of antecedent-focused emotional regulation and for response-focused emotional regulation strategies: response modulation.

Emotional regulation modulates the one's emotional response tendencies (William James, 1884, 1894). Chiu, Yee, Kwan, Cheung, and Hou (2019) conducted a study which aimed to understand the relationship between perceived capability of regulating negative emotions and enjoying positive emotions on mental health issues including depressive and anxiety symptoms, among 167 undergraduates from two universities in Hong Kong. The results showed that perceived ability to control negative emotions and savoring happy or positive emotions were negatively correlated with both anxiety and depression symptoms. Additionally, in order to foresee the onset of anxiety symptoms, regulating negative emotions interacted with savouring happy emotions. The researchers emphasised the importance of managing both good and negative emotions at once. The findings imply that in reducing anxiety symptoms, controlling negative emotions should take precedence over relishing happy sensations. However, those who are less skilled at controlling negative emotions benefit more from strengthening good mood or positive emotions.

Young, Sandman and Craske (2019) in their review paper highlighted that the current understanding of the role of disrupted emotion regulation in anxiety and depression in adolescents, focused through self-report, behavioral, peripheral psychophysiological, and neural measures. The results of self-report studies showed associations between emotion dysregulation and adolescent anxiety and depression. The results from behavioral and psychophysiological studies are mixed with less clear directionality, and with some suggestion of specific impairments in reappraisal in anxiety. Results from neuroimaging studies broadly encompass altered functioning of amygdala-prefrontal cortical circuitries, even though findings are mixed regarding specific patterns of altered neural functioning.

Le, Hsu, Raposa (2021) conducted a study, using 275 undergraduate first semester students, age ranged from 17-36 years old, at a predominantly White, medium sized university in the southeastern United States (approximately half of the sample was female and white), to investigate (1) whether natural mentors categorized as strong ties versus weak ties were associated with college students' use of two emotion regulation strategies, which are emotion suppression and cognitive reappraisal; and (2) whether the effects of strong and/or weak ties on emotion regulation served as a pathway from natural mentoring support to reduced levels of depression and worry (which is, internalizing symptomatology), by following across their first semester longitudinally. Results from path analysis showed that students who had more natural mentors—close family members and friends—reported less emotion suppression, which explained the links between these mentoring relationships and decreased depressive symptoms and worry at follow-up. Less personal mentors, such as teachers or coworkers, did not significantly influence or shape internalising symptom outcomes or emotion regulating practises. Supervía and Robres (2021) conducted a study on 2204 students (1193 male and 1011 female) students of age range 12 - 19 years, belonging to 15 public secondary high schools, focusing on analyzing the relationships between emotional regulation, self-efficacy and academic performance, and also the possible mediating role of self-efficacy in both of the variables. The results show that self-efficacy is positively correlated with emotional regulation and academic performance, a self-determined behavioral pattern is characterized by high scores in emotional regulation, self-

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efficacy and academic performance of the students, and self-efficacy was found to have a mediating effect on the other two variables.

Chacón-Cuberos , Olmedo-Moreno, Lara-Sánchez, Zurita-Ortega and Castro-Sánchez (2019) conducted a cross-sectional and descriptive study, using 2736 university students from 19 Spanish universities, out of which 1822 students belonged from social science field (child education, primary education, pedagogy, social education, law, geography, history and economics) and 914 students belonged from health science field (psychology, sport sciences, nursing, nutrition and pharmacy), age ranged from 18 and 35 years old, to develop a structural equation model which meshes the emotional regulation, basic psychological needs and academic stress. The results shows that the two aspects of emotional regulation—cognitive reappraisal and expressive suppression—and the demand for autonomy are positively correlated. Within the social science students, cognitive reappraisal showed no association. Additionally, the needs for competence and autonomy were negatively correlated with expressive repression and positively correlated with cognitive reappraisal. Students majoring in health sciences showed the strongest correlation in this case. The researchers concluded that in order to manage their academic stress, health science students were found to employ emotional regulation more effectively, hence emphasizing on how crucial it is for higher education to promote emotional control and meet fundamental psychological requirements.

The capacity to control one's emotions, or emotional regulation, is a crucial aspect of mental health and wellbeing. According to Le et al. (2021)., to determine whether and how strong and weak links affect emotional well-being during the transition to college, as well as whether they function, at least in part, through certain psychological processes like emotion regulation, more research is required. The students may choose short-term solutions that are helpful for dealing with their concerns now but could be destructive in the long run (Freire et al., 2020). Hence this study aims to further understand the emotional regulation strategies used by the students.

Thus, forming the following research questions:

Research questions

- Is there any difference in cognitive reappraisal between psychology and non-psychology students?
- Is there any difference in expressive suppression between psychology and non-psychology students?
- Is there any gender difference for cognitive reappraisal among students?
- Is there any gender difference for expressive suppression among students?

Objectives

- To find if there is any difference in cognitive reappraisal between psychology and non-psychology students.
- To find if there is any difference in expressive suppression between psychology and non-psychology students.
- To find if there is any gender difference for cognitive reappraisal among students.
- To find there is any gender difference for expressive suppression among students.

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Hypotheses

- H_{A1}: There is significant difference in cognitive reappraisal between psychology and non-psychology students.
- H_{A2}: There is significant difference in expressive suppression between psychology and non-psychology students.
- H_{A3}: There is significant gender difference for cognitive reappraisal among students.
- H_{A4}: There is no significant gender difference for expressive suppression among students.

METHODOLOGY

Sample

The study used a Quantitative approach Study using a Descriptive study, cross-sectional design. The participants belonged to the age range of 18-25 years old, belonging from diverse cultural background. Out of 100 selected data, 50% were male, and 50% were female. In this study, 50% were students studying psychology, and 50% were studying other streams than psychology (like MBA, MA English, BCom, BCA etc.), including both undergraduate and postgraduate students from a college in Bangalore. The data was collected using convenient sampling technique.

Instruments

Two measures were used in this study,

1. **Demographic Data Sheet:** Age, Course (students studying psychology, students not studying psychology), Year (undergraduate 3rd year, postgraduate 1st year), Gender (male, female), place of staying, reads self-help books/movie or not, place of birth, were asked from the participants
2. **Emotion Regulation Questionnaire (ERQ):** It is a 10-item scale that was created to assess respondents' propensity to regulate their emotions by either expressive suppression or cognitive reappraisal. Each item is answered by respondents on a 7-point Likert-type scale, with 1 representing "strongly disagree" and 7 representing "strongly agree." The following question asks about two different facets of your emotional life: emotional experience (what a person feels like on the inside) and emotional expression (how a person displays their feelings through speech, gestures, and behaviour) (James J. Gross & Oliver P. John, 2003). Generic question kinds make up this inventory.

Statistical Analysis

The IBM SPSS software was used to analyze the data with the statistical techniques as frequency, mean, standard deviation and t-test for the quantitative analysis.

RESULTS AND DISCUSSION

The results and supporting findings are discussed below, based on hypotheses.

H_{A1}: There is significant difference in cognitive reappraisal between psychology and non-psychology students.

Table 1: Independent sample t-test for cognitive reappraisal used among psychology and non-psychology students

	Psy		Non-psy		t	p
	M	SD	M	SD		
Cognitive Reappraisal	29.080	5.6707	28.740	4.9562	0.319	0.750

Note: Psy = Students studying psychology; Non-psy = Students studying courses other than psychology

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Hypothesis 1 states that there is significant difference in cognitive reappraisal between psychology and non-psychology students. For this, Independent sample t-test was conducted, and results shown in table 1. The results show that $t = 0.319$; $p > 0.05$ for cognitive reappraisal. Hence, Hypothesis 1 is rejected. This finding can be supported by a study by Chacón-Cuberos et al. (2019) which showed that there was no significant difference for cognitive reappraisal between health science students (nursing, pharmacy, nutrition, psychology, and sport sciences) and social science students (primary, social, and child education; law; pedagogy; history; geography; economics).

H_{A2}: There is significant difference in expressive suppression between psychology and non-psychology students.

Table 2: Independent sample t-test for expressive suppression used among psychology and non-psychology students

	Psy		Non-psy		t	p
	M	SD	M	SD		
Expressive suppression	16.120	5.0936	19.280	4.2954	-3.354*	0.001

Note: * $p < 0.05$

Hypothesis 2 states that there is significant difference in expressive suppression between psychology and non-psychology students. For this, Independent sample t-test was conducted, and results shown in table 2. The results show that $t = -3.354$; $p < 0.05$ for expressive suppression. Hence, Hypothesis 2 is accepted. The result tells that students studying non-psychology courses have higher level of expressive suppression. This finding is contradicted by a study by Chacón-Cuberos et al. (2019) which showed that there was significant difference for expressive suppression between health science students (nursing, pharmacy, nutrition, psychology, and sport sciences) and social science students (primary, social, and child education; law; pedagogy; history; geography; economics), with higher levels seen in health science studying students. The researchers concluded that due to psychology students being part of this sample group and having better understanding and control over their emotions using adequate strategies, the health science students showed higher levels of expressive suppression (McDaniel et al., 2014).

H_{A3}: There is significant gender difference for cognitive reappraisal among students.

Table 3: Independent sample t-test for cognitive reappraisal used among genders

	Male		Female		t	p
	M	SD	M	SD		
Cognitive Reappraisal	28.920	5.4505	28.900	5.2030	0.019	0.985

Hypothesis 3 states that there is significant gender difference for cognitive reappraisal among students. For this, Independent sample t-test was conducted, and results are shown in Table 3. The results show that $t = 0.019$; $p > 0.05$ for cognitive reappraisal. Hence there is no significant difference present between males and females for cognitive reappraisal. However, Hypothesis 3 is rejected. This finding was accepted by a study by Cifuentes-Férez & Fenollar-Cortés (2017) to understand the influence of emotional regulation and expressivity and self esteem on the translation performance of students studying translation. In this study no significant gender differences were found for emotional regulation. However, this finding also contradicts that finding of the study by Liao, Gu, Wang, Li,

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Wang, Zhao and Feng (2022) on understanding the influence factors of Non-suicidal Self-injury (NSSI), especially exploring the relations between depression, neuroticism, emotional regulation and NSSI behaviours among college students. According to this research finding, females have higher levels of cognitive reappraisal and expressive suppression, in comparison to males. The researchers concluded, based on their findings, that female neurotic students are prone to negative automatic thinking when dealing with negative life incidents, and face difficulties in cognitive reappraisal, whereas male neurotic students tend to suppress their emotions when face the same, which may lead to depression.

H_A4: There is significant gender difference for expressive suppression among students.

Table 4: Independent sample t-test for expressive suppression used among genders

	Male		Female		t	p
	M	SD	M	SD		
Expressive Suppression	18.900	4.5457	16.500	5.0880	2.487*	0.015

Note: * $p < 0.05$

Hypothesis 4 states that there is significant gender difference for expressive suppression among students. For this, Independent sample t-test was conducted, and results are shown in Table 4. The results show that $t = 2.487$; $p < 0.05$ for expressive suppression. Hence there is significant difference present between males and females for expressive suppression, with results showing that males have higher levels of expressive suppression, in comparison to females. So, Hypothesis 4 is accepted. This finding was accepted by a study by Masumoto, Taishi and Mariko (2016) on understanding the relationship of age and gender differences effect on mood, emotional regulation and mental health. The results of the study showed that males have higher levels of expressive suppression than females.

CONCLUSION

The study aimed to understand the emotional regulation strategies used by students studying psychology and students not studying psychology courses, and gender difference for emotional regulation. The findings of this study state that there is no significant difference for cognitive reappraisal among students studying and not studying psychology courses. And there is no significant gender difference for cognitive reappraisal. However, the study showed that there is significant difference for expressive suppression among courses and gender. The results showed that students studying different courses have higher levels of expressive suppression, in comparison to students studying psychology. And males have higher levels of expressive suppression in comparison to females. The study suggests for further studies to be done on the additional findings to find significant reason of how gender and courses might have effected expressive suppression strategy.

Implications

The study can have important implications in further contribute to the existing knowledge about the variables, to help to understand the effect of psychological knowledge on the emotional functioning, and to help to understand the emotion regulation used by the college students for further understanding its effects on their psychological well-being and academic performance. The study helps in building the ground level of the foundation of how the emotional regulation varies among college students, with significant difference seen between their opted courses. Hence, further research regarding how these two variables may

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effect each other will give us the idea of how knowledge about human psychological factors, like emotions can effect the strategies to be taken for managing them.

REFERENCES

- Allport, F. H. (1924). *Social psychology*. Boston, Houghton.
- Arnold, M. B. (1960). *Emotion and personality: Psychological aspects*. New York, NY: Columbia University Press.
- Chacón-Cuberos, R., Olmedo-Moreno, E. M., Lara-Sánchez, A. J., Zurita-Ortega, F., & Castro-Sánchez, M. (2019). Basic psychological needs, emotional regulation and academic stress in university students: a structural model according to branch of knowledge. *Studies in Higher Education, 115*. doi:10.1080/03075079.2019.1686610
- Chiu, H. T., Yee, L. T. S., Kwan, J. L. Y., Cheung, R. Y. M., & Hou, W. K. (2019). Interactive association between negative emotion regulation and savoring is linked to anxiety symptoms among college students. *Journal of American College Health, 68*(5), 494–501. <https://doi.org/10.1080/07448481.2019.1580712>
- Cifuentes-Férez, P., & Fenollar-Cortés, J. (2017). On the impact of self-esteem, emotion regulation and emotional expressivity on student translators' performance. *Vigo International Journal of Applied Linguistics, 14*(1).
- Ekman, P. (1972). Universal and cultural differences in facial expressions of emotions. In J. K. Cole (Ed.), *Nebraska Symposium on Motivation* (pp. 207–283). Lincoln, NE: University of Nebraska Press
- Feldman, R. S. (2011). *Understanding psychology*. (10th ed.). McGraw-Hill College.
- Feng, R., Zhang, Y. T., and Ma, X. T. (2015). Analysis of research and progress in mental health education for graduate students in China in the past thirty years-based on review of CNKI literature between 1983 and 2013. *J. Grad. Educ. 1*, 21–25, 84.
- Freire, C., Ferradás, M. D. M., Regueiro, B., Rodríguez, S., Valle, A., & Núñez, J. C. (2020, May 19). Coping Strategies and Self-Efficacy in University Students: A Person-Centered Approach. *Frontiers in Psychology, 11*.
- Frijda, N. H. (1986). *The emotions*. New York, NY: Cambridge University Press
- Gross, J. J. (1998, September). The Emerging Field of Emotion Regulation: An Integrative Review. *Review of General Psychology, 2*(3), 271–299. <https://doi.org/10.1037/1089-2680.2.3.271>
- Gross, J. J. (1998b). The emerging field of emotion regulation: An integrative review. *Review of General Psychology, 2*, 271–299.
- Gross, J. J. (1999). Emotion Regulation: Past, Present, Future. *Cognition & Emotion, 13*(5), 551–573.
- Gross, J. J. (2015). Emotion regulation: Current status and future prospects. *Psychological Inquiry, 26*(1), 1–26.
- Gross, J. J., & John, O. P. (1997). Revealing feelings: facets of emotional expressivity in self-reports, peer ratings, and behavior. *Journal of personality and social psychology, 72*(2), 435–448. <https://doi.org/10.1037//0022-3514.72.2.435>
- JAMES, W. (1884). II.—WHAT IS AN EMOTION ? *Mind, os-IX*(34), 188–205. <https://doi.org/10.1093/mind/os-ix.34.188>
- James, W. (1894). Discussion: The physical basis of emotion. *Psychological review, 1*(5), 516.
- Lazarus, R. S. (1991). *Emotion and adaptation*. New York, NY: Oxford University Press
- Le, T. P., Hsu, T., & Raposa, E. B. (2021). Effects of Natural Mentoring Relationships on College Students' Mental Health: The Role of Emotion Regulation. *American Journal of Community Psychology*.

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- Liao, C., Gu, X., Wang, J., Li, K., Wang, X., Zhao, M., & Feng, Z. (2022). The relation between neuroticism and non-suicidal self-injury behavior among college students: Multiple mediating effects of emotion regulation and depression. *International journal of environmental research and public health*, *19*(5), 2885.
- Luo, T., Lu, L., and Zhu, X. (2015). Study on the relationship between postgraduate student's emotion regulation and commit suicide attitude. *Creat. Educ.* *6*, 1237–1243.
- Masumoto, K., Taishi, N., & Shiozaki, M. (2016). Age and Gender Differences in Relationships Among Emotion Regulation, Mood, and Mental Health. *Gerontology and Geriatric Medicine*, *2*, 233372141663702. <https://doi.org/10.1177/233372141663702>
- McDaniel, S. H., Grus, C. L., Cubic, B. A., Hunter, C. L., Kearney, L. K., Schuman, C. C., . Johnson, S. B. (2014). Competencies for psychology practice in primary care. *American Psychologist*, *69*(4), 409–429. <https://doi.org/10.1037/a0036072>
- McRae, K., & Gross, J. J. (2020). Emotion regulation. *Emotion (Washington, D.C.)*, *20*(1), 1–9. <https://doi.org/10.1037/emo0000703>
- Thoits PA. Self-labeling processes in mental illness: The role of emotional deviance. *American Journal of Sociology*. 1985; *91*:221–249.
- Thurber, C. A., & Walton, E. A. (2012). Homesickness and adjustment in university students. *Journal of American college health*, *60*(5), 415-419.
- Usán Supervía, P., & Quílez Robres, A. (2021). Emotional Regulation and Academic Performance in the Academic Context: The Mediating Role of Self-Efficacy in Secondary Education Students. *International Journal of Environmental Research and Public Health*, *18*(11), 5715.
- Williams, W. C., Morelli, S. A., Ong, D. C., & Zaki, J. (2018). Interpersonal emotion regulation: Implications for affiliation, perceived support, relationships, and well-being. *Journal of personality and social psychology*, *115*(2), 224.
- Wilson-Mendenhall, C. D., Barrett, L. F., Simmons, W. K., & Barsalou, L. W. (2011). Grounding emotion in situated conceptualization. *Neuropsychologia*, *49*(5), 1105–1127. <https://doi.org/10.1016/j.neuropsychologia.2010.12.032>
- Young, K. S., Sandman, C. F., & Craske, M. G. (2019). Positive and negative emotion regulation in adolescence: links to anxiety and depression. *Brain sciences*, *9*(4), 76.

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Conflict of Interest

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