

Emotional Regulation and Cognitive Flexibility in Young Adults

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ABSTRACT

Young adulthood is viewed as a time of growth, development, and uncertainty. Generally, time and again young adults get through stress as they get used to the responsibilities that come with functioning, living, and working in the real world. Impulsivity and poor decision-making capacities often become apparent in young adulthood. Emotion regulation can be delineated while the appliance through which individuals adjust their emotions to achieve a desired outcome. Studies ground in that maladaptive emotion regulation strategies are an important role in the development and maintenance of psychopathology; vary with self-regulation goals during periods of emotional distress. Cognitive flexibility is the human ability to adapt the cognitive processing strategies to face new and unexpected conditions in the environment and can play a role in proper emotional regulation ability. Present study examined the relationship between cognitive flexibility and emotion regulation in 30 young adults in the age range of 18-25 years of both sexes. Emotional Regulation Questionnaire and neuropsychological test were administered to assess the domains. Finding suggests that there is a significant relation between Emotional Regulation and Cognitive Flexibility in young adults and most of the young adults are using cognitive reappraisal in emotional regulation process.

Keywords: Cognitive Flexibility, Emotional Regulation, Cognitive reappraisal, Young Adults.

INTRODUCTION

Young adulthood—spanning approximately ages 18 to 25—is a critical period of development, with long-lasting implications for a person’s emotional security, health, and well-being. Young adults are having more emotional ups and downs, unpredictable

moods or strong feelings. It interferes with their day to-day vocational, social, and family functioning, at times leading to development of psychopathology. Along with emotional turmoil, their cognitive functions, especially sustained attention is often found poor when compared to middle aged adults (Halder et al., 2019). Young adults are propitious or promising age to explore processes and correspond of emotion regulation for various reasons. In these situations, young adults consistently endorsed less passive emotion-focused strategies (e.g., not directly dealing with the issue) such as passive dependence and avoidance than older adults (Blanchard Fields et al., 1995). In contrast, adolescents and younger adults tended to approach emotionally salient problems with the idea to control the problem and fix it. Psychological research shows that emotion, although functional and evolutionary based to increase our chances of survival (Frijda, 1986; Ekman and Davidson, 1994; Oatley and Jenkins, 2003), must be regulated in order to support psychological health and well-being (Jarymowicz, 2008; Aldao et al., 2010) or to help achieve our goals (Aldao et al., 2015). Thus, emotion regulation seems to be a mechanism enabling better coping with environmental demands, so that emotions that are important signals informing about external circumstances or internal states. The transformation in young adults is accomplished by physical, psychological and social transformations that elicit novel experiences of emotional arousal. This population experience more frequent and intense emotions than older people. Also, the cognitive systems thought to underlie the regulation of emotion appear to mature throughout this period (Spear 2000). A better comprehension of emotional regulation during this period may help us to understand individual differences in mental health and adjustment during the periods of increased risk. The effectiveness of emotion regulation is crucial for different aspects of healthy affective and social adaptation (Gross, 2001; John and Gross, 2004). Dysregulation of emotions typically characterizes mood and anxiety disorders. Emotion regulation consists of the extrinsic and intrinsic process responsible for monitoring, evaluating and modifying in emotional reactions (Thompson, 1994). Emotion regulation refers to the processes by which we influence emotions we experience, when we experience them, and how we experience and express them. (Gross 1998). From neurological perspective also, major changes in brain functioning starts to occur during adolescence; but in young adulthood the brain systems wants or demands rewards and emotions are processed in more developed way than cognitive control systems which are responsible for good decision-making and future planning. This measures that self-regulation is developmentally at this point of age. Enormous growth in self-regulation skills continues throughout young adulthood, which can be nourished with instruction and support. At first, identification of the situation is done and then an individual starts processing the situation and then finally starts to express the emotions. This process is a very crucial part in regulating emotions.

Number of studies on emotion regulation has increased in the past two decades. Not many studies have directly examined on emotional regulations with cognitive flexibility in young adults. Studies have been done in Elderly population (John & Gross, 2004; Kessler Staudinger, 2009) and in adolescence mainly. (Gross and Thompson, 2007; Giuliani and Gross, 2009). In this perspective, the aim of the present study was to explore relationship between Emotional Regulation and Cognitive Functioning in Young Adults.

METHOD

Sample

In the present study cross sectional design was used and total 30 individuals, age range between 18 to 25 of both genders were included from Kolkata, West Bengal following purposive sampling Technique. Informed consent was taken from each participant and detail background information were collected following Socio demographic schedule. Afterwards, to assess emotional regulation and cognitive flexibility the following tests were administered.

Tools

Emotion regulation questionnaire designed by Gross, & John, (2003) to assess individual differences in the habitual use of two emotion regulation strategies: cognitive reappraisal and expressive suppression. ERQ, a 10-item scale is designed to measure respondents' tendency to regulate their emotions in two ways: (1) Cognitive Reappraisal and (2) Expressive Suppression. Respondents answer each item on a 7-point Likert-type scale ranging from 1 (strongly disagree) to 7 (strongly agree). In the present study this tool had been used to assess the use of emotional regulation in young adults.

Trail Making Test (Lezak, 1995) consists of two parts, A and B. Part A consists of one sample test and one task. It assessed the cognitive flexibility. Trail Making test (TMT is the neuropsychological test of visual attention and task switching. The test can provide information regarding visual search speed, scanning, speed of processing, mental flexibility as well as executive functioning. The test-retest reliability was found for Part A and Part B of the TMT respectively $r=0.78$ and 0.67 .

Stroop Neuropsychological Screening Test (Benson & Struss, 1986) measures response inhibition. It measures the ease with which a perceptual set can be shifted both to conjoin demands and suppressing a habitual response in favor of an unusual one. The prefrontal areas are essential for response inhibition. Test retest reliability was assessed and the correlation of the Color-Word Scores from the first and second administration was 0.90 suggesting a high degree of temporal stability. In the present study, this test was used to assess the cognitive flexibility.

The Modified Wisconsin Card Sorting Test (M-WCST; Nelson, 1976), an adaptation of the Wisconsin Card Sorting Test (WCST; Berg, 1948; Grant & Berg, 1948), is a widely used neuropsychological test for assessing higher-order cognitive functioning, or executive functioning that is associated with the frontal lobes of the brain. For successful completion of the M-WCST, the use of abstract reasoning, strategic planning, organized searching, integration of external feedback, mental flexibility, and impulse control are required (Nelson, 1976). In the present study this test was used to assess the cognitive Flexibility.

RESULTS AND DISCUSSION

Table 1

Socio Demographic Details of the Sample

Variables	Range	Mean	SD
Age (in years)	18 -25	22.06	2.39
		Number	Percentage
Gender	Female	15	50
	Male	15	50
Education	Graduation	5	17
	Post Graduation and above	5	83
Occupation	Student	3	10
	Service	20	66
	Teaching	4	13
	Homemaker	3	10

Table 2

Emotional Regulation and Cognitive Flexibility of the Sample

Domain	Measures	Mean	Standard Deviation
Emotional Regulation	Cognition Reappraisal	26.97	7.88
	Emotional Suppression	17.93	4.91
Cognitive Flexibility	TMT 1	45.37	14.87
	TMT 2	83.10	33.29
	Stroop Error	89.33	42.09
	No of correct Responses	5.20	0.93
	Preservative Error	26.97	2.65

Table 3

Correlation between Emotional regulation and Cognitive Flexibility in Young Adults

Cognitive Flexibility	Cognitive Reappraisal		Expressive Suppression	
	r value	p value	r value	p value
TMT 1 (Time)	0.006	0.975	-0.078	0.681
TMT 2 (Time)	0.013	0.92	-0.074	0.679
Stroop (Effect)	-0.153	0.412	-0.146	0.441
M-WCST Correct response	-0.079	0.068	0.526**	0.003
PE	0.068	0.720	-0.278	0.137

Effective emotional regulation in different context of threat and stress is required for psychological well being. The action of managing thoughts and feelings and to express that according to the situational demands various actions to fulfill that. They face difficulties in handling their problems become impulsive and moody. The concept of emotional regulation is very important as for now to elucidate individual differences in the development of psychopathology. So it's an opportune time to explore processes and correlates of emotion regulation for several reasons. They regulate their emotions in a wide variety of ways in that age. The present study aims to explore relationship between emotional regulation and executive functioning in Young Adults. Findings from the present study showed that there is a positive relation between cognitive flexibility and emotional regulation in young Adults; and they regulate emotion in both ways, either by expressing or repressing. A significant relation between suppression and correct responses in M-WCST has been found. Individuals might not express their emotions at that particular moment. From the environmental stimulus and feedback they do better analysis and modify themselves for better adjustment. Individuals with high expressive suppression took much time to respond and committed less error. (TMT 2 and Stroop Error). Individuals with high suppression took much time to respond may be they tried to keep their emotions to themselves and react much later. However, individuals frequently using expressive suppression experience and express less positive emotions, without differences in the negative ones (Gross and John, 2003; Abler et al., 2010; Larsen et al., 2012). Matsumoto et al., 2008 found that expressive suppression was negatively related to depression or anxiety in countries with higher means of expressive suppression (e.g., those in East Asia). Those who are more cognitive Flexible are having better Emotional Regulation; as they can analyses the situation better. As from the findings, it can be said that, person who express their emotions they took less time to respond (TMT 2), using cognitive reappraisal to regulate

emotions is associated with healthier patterns of affect, social functioning, and well-being than is using expressive suppression. Present finding suggests that both the genders are more likely to use cognitive reappraisal as their coping strategies. Individuals might not express their emotions at that particular moment, from the environmental stimulus and feedback they do better analysis and modify themselves for better adjustment. Affectively, when individual use cognitive reappraisal to regulate the emotion in their everyday life, it is found to be related to greater experience and expression of positive emotions and lesser experience and expression of negative emotions. Whereas by contrast, individuals who frequently using expressive suppression experience and convey less positive emotions, without variances in the negative ones (Gross and John, 2003; Abler et al., 2010; Larsen et al., 2012). However, expressive suppression may escalate negative affect through its unbending link with inauthenticity, specifically leading to feel bad about the self and even to depressive symptoms (John and Gross, 2004). *Situational Demands and Individual Differences Influence the Effectiveness of Regulatory Strategies* (Kobylińska and Kusev 2019).

Studies which have used ERQ have manifested that the habitual use of these strategies differs consistently between individuals and is stable in time (Gross and John, 2003). Moreover, cognitive reappraisal and expressive suppression ensued barely related to intelligence, social desirability and personality traits, but thoroughly related to the constructs of inauthenticity, coping with stress and mood management (John and Gross, 2004). Females are more flexible than men in regulating their emotions, Women are more likely than men to report using several different emotional regulation strategies. (Tamras et al., 2002)

Studies indicate that older people have greater dimensions to control their emotional states than do their younger counterparts. Recent evidence suggests that emotional wellbeing improves throughout adulthood (Scheibe & Carstensen, 2010). Successful management of emotions is associated with positive outcomes, including an enhanced sense of self-efficacy and improved psychological well-being (Eisenberg et al., 2000). Emotion regulation is assumed to improve everyday affect, Few studies have directly examined its relationship with affect from a lifespan perspective (Scheibe & Carstensen, 2010).

CONCLUSION AND IMPLICATIONS

One of the earliest studies reported that global emotion regulation in difficult situations mediated age differences in affect (Kessler & Staudinger, 2009). Emotions do not need to be regulated or modified all the time but only when they interfere with desired behaviors or goals (Aldao et al., 2015; English et al., 2017). Cognitive reappraisal has a healthier profile of short-term affective, cognitive, and social consequences than

expressive suppression. Executive functioning helps to regulate emotion amongst young adults. Successful management of emotions is associated with positive outcomes, including an enhanced sense of self-efficacy and improved psychological well-being. Knowledge in pattern of Emotional regulation and Cognitive Flexibility can have implication on occupational and social functioning. Further study can be done by taking large sample and comparison with other age groups could be done like Adolescence, elderly populations. It is concluded that relation between emotional regulation and cognitive flexibility is present in young adults. Proper regulation of emotions among young adults is necessary for them to thrive in stressful situations and in corporate environment instilling job satisfaction. The desire state of one is to be cognitively flexible to adjust in every changing positive or negative situation. Propitious emotional regulation helps in having good psychological health, proper social functioning, and greater coping strategies in stressful situations (Salovey et al; 2010). Future intervention must focus more on building up proper regulatory abilities and to reinforce using of some specific emotional strategies according to the situation (Troy, et al., 2013).

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