

Emotional Regulation And Executive Functioning:

**Does emotional regulation affect executive
functioning?**

ABSTRACT

The present study focuses on how Emotional Regulation affects Executive Functioning, either positively, negatively or null. The sample constitutes a total of 90 boys and girls, aged 18 to 25 years old who were selected using proportionate random sampling. For Executive Functioning, Executive Skills Questionnaire - Revised (ESQ-R) was administered Developed by Julia Strait and Peg Dawson in 2019 which is a 25-item scale. For Emotional Regulation, Emotional Regulation Questionnaire (ERQ) a 10 item self-report measure developed by Gross and John in 2003 was used. Both the tests were administered to all the participants. Descriptive Research Design was used in the research. The Non-Parametric Mann Whitney test was used to check whether there were any significant differences in males and females which were not found. Then the Spearman coefficient was used to find the correlation between the two variables. Therefore, results showed that Emotional Regulation and Executive Functioning do not show any correlation and the null hypothesis was accepted.

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Emotional Regulation And Executive Functioning: Does emotional regulation affect executive functioning?

1. INTRODUCTION

Emotions play a major role in our daily lives; we experience many different emotions that come with their highs and lows. Some of the emotions are easy to deal with, while some emotions are more severe and difficult to manage. Some people have difficulties in managing their emotions for a long period which can lead to mental health problems. These mental problems affect our lives in various ways. In this study, we learn about the relationship between emotional regulation and executive functioning. Emotion regulation means a person's ability to effectively manage and respond to emotional experience. And executive functioning is a set of mental skills that help in organize our decisions and our emotions through a set of skills that include working memory, flexible thinking and self-control. What does it mean when we ask does emotion regulation affects executive functioning? Emotional regulation and executive functioning go hand in hand and are connected in more than one way. These skills develop throughout childhood and into adulthood. To better understand how emotions can impact learning for students, we first need to understand the relationship between emotions and executive function. Sometimes, emotions become intense, out of control and becomes dysregulated which impacts the ability to manage behaviors and cognitive thought processes, or the executive functioning skills. When our emotions are so severe that it becomes difficult to deal with due to which we become dysregulated, and our executive function is affected. These dysregulated emotions can affect our lives in various ways. In this research, we talk about how emotional regulation and executive functioning affect each other.

2. CONCEPT OF THE STUDY

Detailed explanation of Emotional Regulation:

Emotions signal threats and rewards. Much like a compass that guides us in the right commission. Emotions have the index to guide us to the right action at law. For example, when a child commits a mistake, he might get scared and lie to his parent about it or avoid confronting them for fear of punishment. His parents may eventually discover what their child kid did and the child, in all probability will end facing the same consequences that he was trying to avoid. In this instance, example, listening and responding to the ‘fear’ emotion proved futile to the child. However, the same emotion (fear) would have proven helpful for someone being chased by a wild animal in the forest. In that situation, running to avoid confronting the savage beast would have been the correct decision.

Almost every day, we face number of emotion-provoking stimuli, and most of them need some action or response from our side. It is natural for the thoughts to get hooked into a few bad contemplations or unmindfully forget about feelings after you have bombarded with such a lot of stimuli each day. Emotional regulation acts as a modifier; it facilitates us clear out the maximum essential portions of records and motivates us to take care of it in a manner that would not evoke pressure or fear.

History of Emotional Regulation:

Interest in emotion regulation dates back to the dawn of history. Early philosophical and religious writings are replete with discussions of ways to lessen or amplify, and shorten or extend, emotional responses. For example, the great Stoic truth seeker Epictetus provided hints on how to manage unhelpful emotions, and his recommendation keeps having a cutting-edge ring almost millennia

later. In the contemporary-day generation in the subject of psychology, emotion law has been a focal point that takes a look at mental defenses (Freud, 1926/1959), strain and coping (Lazarus, 1966), attachment (Bowlby, 1969), and self-regulation (Mischel et al., 1989). This longstanding hobby in emotion regulation has dramatically improved over the last decades (Gross, 2007; 2010). Until the early 1990s, few courses contained the phrase “emotion regulation” For example, in 1990, there have been handiest four such citations. Since this time, there was an marvelous growth in citations. In 2005, for example, 671 courses contained the phrase “emotion regulation.” While quotation counts are a crude and imperfect metric at best, the 150-fold plus growth in citations over this 15-year length genuinely displays the developing reputation of this topic. Popularity may be an exceptional thing, however it has its own challenges. Despite extended attention, there stays confusion approximately the character of the procedures that regulate emotion, or even whether or not such procedures are meaningfully distinct from the ones which can be normally taken into consideration to constitute emotion properly.

We argue that such disagreements are living within the specific methods wherein emotion is scientifically described. To make such concerns explicit, we first set up specific clinical views on emotion alongside a free continuum from those who represent feelings as biologically described entities in want of law (e.g., simple emotion and a few appraisal views) to those who represent feelings as built intellectual activities that cannot, themselves, be acted upon by different procedures (e.g., constructionist views). We then recall both similarities and variations in how those views technique the idea of emotion regulation. Finally, we talk the broader implications of divergent perspectives of emotion and emotion regulation for the subject of affective science.

Detailed Explanation Executive Functioning:

Executive functioning refers to the set of cognitive processes which are important for cognitive control.

There are three main areas of cognitive functioning:

1. Working Memory - which controls our ability to retain and manipulate distinct pieces of information over short period of time.
2. Mental Flexibility - helps us to sustain to shift attention in response to different demands or to apply different rules in different situations.
3. Self-Control - allows us to set priorities and resist impulsive actions or response.

Executive Functioning also are the skills which enable mental process like:

1. Focusing attention
2. Planning and organizing things
3. Performing multiple tasks
4. Regulating emotions
5. Self-monitoring

These executive skills generally start developing in early childhood and they develop till mid-20s.

Signs which that state issue with executive functioning:

1. Having trouble starting or completing task
2. Having difficulty in prioritizing tasks
3. Panic when rules and routine change
4. Overly emotional
5. Having trouble managing things.

6. Having trouble organizing tasks.

Possible causes which led to trouble in executive functioning:

1. Differences in brain development - they have found that some areas in the brain develop little slowly in the people struggling with problem in executive functioning.
2. Genes and Heredity - Many times people with troubles with executive functioning have this through heredity from their family.
3. Learning Disability - person with trouble in executive functioning often have learning disability. Dyslexia or Dyscalculia are common examples for children.

Diagnosing and Treating:

A. Professionals use different type of test to assess executive functioning

1. Trail marking test
2. Clock drawing test
3. Card sorting test
4. Verbal fluency test.

B. Treatment to assess' problems with executive functioning

1. Different type of medications like stimulant medicines, antidepressants, antipsychotics medicines
2. Occupational and Speech Therapy
3. Cognitive Behavioral Therapy (CBT)
4. Psychoeducation

Who coined the term Executive function?

- Pribram (1973)

History of Executive function:

Executive function (EF) has emerged as an umbrella time period used for a variety of hypothesized cognitive processes, consisting of planning, working memory, attention, inhibition, self-monitoring, self-regulation, and initiation executed with the aid of using prefrontal regions of the frontal lobes.

Although the idea of EF turned into first described within the 1970s, the idea of a manage mechanism turned into mentioned as a long way lower back because the 1840s. Phineas Gage gives possibly one of the maximum captivating case research related to EF. In 1840, as a railroad construction foreman, Phineas turned into pierced with a huge iron rod through his frontal lobe. This coincidence destroyed a majority of his left frontal lobe. Phineas survived and after a length of restoration adjustments in Phineas' conduct and character have become apparent. Phineas turned into defined as "disinhibited" or "hyperactive," which cautioned a lack of inhibition frequently determined in people with harm to the prefrontal cortex (Pribram, 1973). This case and others brought about early brain researchers to similarly check out the position of the frontal lobes and the concept of Executive Functioning. By the 1950s, psychologists and neuroscientists have become more inquisitive about information the position of the prefrontal cortex in sensible behavior. British psychologist Donald Broadbent (1953) defined variations among computerized and managed processes. This difference changed into in addition elaborated through Shiffrin and Schneider (1977). These authors brought the perception of selective interest to which EF is carefully related. In 1975, psychologist Michael Posner coined the term "cognitive control" in a book chapter titled "Attention and Cognitive Control." Posner proposed that there is a separate executive branch of the attentional device accountable for focusing attention decided on factors of the environment. Alan Baddeley proposed a comparable device as a part of his version of working memory,

arguing there need to be an aspect which he referred to as the “central executive” permitting facts to be manipulated in short-time period memory.

Shallice (1988) additionally counseled that interest is Regulated through a “supervisory device that could override automatic responses in choose of scheduling conduct on the premise of plans or intentions.” Consensus slowly emerged that this central system is housed within the maximum anterior part of the brain, the prefrontal cortex.

Pribram (1973) became one of the first to apply the term “executive” when discussing topics of prefrontal cortex functioning. Since then, at least 30 or greater constructs had been covered below the umbrella term, EF, making the idea tough to operationally outline. Many authors have made tries to outline the idea of executive function by using models that variety from one to more than one additive.

Lezak (1995) suggested that EF’s consisted of additives associated with volition, making plans, practical action, and powerful performance. It has been hypothesized that every issue entails a distinct set of associated behaviors. Reynolds and Horton (2006) suggested that EF’s are distinct from general knowledge. They advocate that executive function capabilities constitute the ability to plan, to do things, and to carry out adaptive actions, at the same time as general knowledge associated with the retention of a prepared set of goal facts. They further hypothesized that EF entails choice making, making plans actions, and producing novel motor outputs tailored to outside demands in place of the passive retention of information. Naglieri and Goldstein (2013) primarily based totally their view on the behavioral factors of executive function characteristics on a large national study of children. They advocate that executive function characteristic is best represented as a single phenomenon, conceptualized because the performance with which

individuals cross about obtaining knowledge in addition to how well troubles may be solved throughout nine areas (attention, emotion regulation, flexibility, inhibitory control, initiation, organization, planning, self-monitoring, and working memory.)

3. REVIEW OF LITERATURE

Sudikoff, *et al* (2015) has reported that there is an aspect of cognitive control under emotional regulation is thought to be closely associated with executive functioning. This study has been conducted on children age 8-12 to investigate the relationship between executive functioning and emotional regulation and the research team administered the children's neuropsychological and self-report which measures emotion regulation and executive functioning while parents completed behavioral ratings of these abilities. Association between behavioral ratings and neuropsychological measures indicates greater proficiency in executive functioning skills are associated with greater emotion regulation capabilities. Thus, the research shows that emotional regulation and executive functioning skills are linked together and may play a very important role in treatment planning in clinical population with weakness in these areas.

Bernier *et al* (2010) study has investigated that the prospective links between quality of parent-infant interactions and subsequent child executive functioning, including working memory, impulse control, and set shifting in keeping with proposals emphasizing the role of early experience in infant brain development. Maternal sensitivity, mind-mindedness and autonomy support were assessed when children were 12-15 months old (N = 80). The executive function of children were assessed when they were 18-26 months old. The study found that autonomy support was the strongest predictor of EF at each age, independent of general cognitive ability and maternal education. Thus,

this research has been found that child stress- response systems in suggesting that parent–child relationships may play an important role in children’s developing self-regulatory capacities.

Gruber, R., & Cassoff, J ,(2014) has reported that emotions are biologically-based responses which help an organism to meet the challenges and opportunities, and involve changes in subjective experience, behavior and physiology. The study says that there may be many factors which are considered to be associated with healthy emotional regulation, the role of sleep in this process is said to be largely ignored but recently studies have been done to find out how sleep critically affects emotional functioning and those findings have estimated that night time sleep affects the daytime mood, emotional reactivity and the capacity to regulate positive and negative emotions; conversely, daytime experience affects sleep. So thus there is a complex interplay between sleep and emotion regulation. This study is done to find the interplay between the sleep and emotional regulation in adults. They propose that the connectivity between the emotional centers of the brain- the prefrontal cortex and the amygdala – is in part dependent on the homeostatic sleep system such that connectivity between these brain networks is higher when rested and lower when sleep deprived. Hence all the cognitive process of the brain has been examined.

Hofmann *et al*, (2012) has reported that self-regulation is a core aspect of adaptive human behavior that has been studied, largely in parallel, through the lenses of social and personality psychology as well as cognitive psychology. They argue in this study for more communication between these disciplines and highlight the recent research that speak to their connections. The study has outlined how basic facets of executive functioning (working memory operations, behavioral inhibition, and task-switching) may subserve successful

self-regulation. The study also argues that temporary reductions in executive functions underlie many of the situational risk factors identified in the social psychological research on self-regulation and review recent evidence that the training of executive functions holds significant potential for improving poor self-regulation in problem populations.

Kelsey S. Dickson & Jeffrey A. Ciesla (2018) has reported in their study that recent data highlight maladaptive emotion regulation strategies as a transdiagnostic risk factor. Executive functioning (EF) is also conceptualized as a transdiagnostic mechanism. Drawing these two areas together, data supports the intervening role of rumination, a form of emotion regulation, in the EF clinical symptomatology link. However, they assume that research has yet to fully examine various emotion regulation strategies as transdiagnostic mechanisms in youth. The relationship between EF components, emotion regulation strategies, and transdiagnostic negative affect was examined. Set-shifting was associated with general emotion regulation difficulties as well as rumination, worry, and thought suppression. Inhibition was only related to general emotion regulation difficulties and the brooding subtype of rumination. Finally, various forms of emotion regulation were observed to mediate the relationship between set-shifting and negative affect.

Thus, the reason to study the relationship between the emotional regulation and executive functioning skill is that there are many studies which have been done but mostly on young infants and children of preschool. Some studies which have been done are not taken the variable combination of our study which is emotional regulation and executive functioning. Hence after thorough reviewing we came to the conclusion to study the relationship between the emotional regulation and executive functioning skill on young adults

of age 18-25. This study can be used to examine the mental health of the clients and can be also used in industrial psychology.

4. STATEMENT OF THE PROBLEM

To study the relationship between emotional regulation and executive functioning among young adults.

5. OBJECTIVE OF THE STUDY

1. To examine the relationship between emotional regulation i.e. cognitive reappraisal on executive functioning skills among young adults.
2. To examine the relationship between emotional regulation i.e. expressive suppression on executive functioning skills among young adults.

6. SIGNIFICANCE AND RATIONALE

While many studies have previously been conducted to study various aspects of executive functioning, this topic is far from being exhausted as a research area. This study is specifically conducted to analyze the impact of emotional regulation (cognitive reappraisal and expressive suppression) on executive functioning. This will help us configure the better of the two alternatives to regulate our emotions so that our executive functioning is not affected adversely, which will further expand our understanding about human functioning. As there is absence of agreement on a gold standard test for executive functioning, this study also uses the most accepted test for executive functioning and emotional regulation for proper and to-point assessment of the sample. Although similar type of research have been done abroad there are no evidences of this study being performed in India where there

might vary in the results due to cultural variations. This study also aims to explore and study whether there are any gender differences which many previous studies have failed to investigate. This study will also be an original contribution to psychological progress in the field of executive functioning as most of the research on emotional regulation and executive functioning was based on data collected from smaller age group and adolescence leaving the adults age group untouched. So, this study aims to shed some light on the relation between emotional regulation and executive functioning among young adults.

7. METHODOLOGY

The methodological aspects discussed in the present section will cover variables, operational definitions of the variables, hypotheses, sample, and tools, procedure of data collection and statistical analyses of the data.

7.1 Variables:

VARIABLE 01: Emotional Regulation (cognitive reappraisal, expressive suppression)

VARIABLE 02: Executive functioning

7.2 Operational Definition:

1. “Executive functions (EF’s) are a group of higher-level cognitive functions that allow individuals to initiate, maintain, monitor, adjust, and complete goal-directed actions.”

(Dawson and Guare 2010; Dempster 1992; Lezak1995; Miyake et al. 2000).

2. “Emotional regulation refers to the ability to effectively exert control over one's emotions through a wide range of strategies to influence emotions one has, experiences, or expresses.” (Gross, 2001).

a) “Reappraisal is an antecedent-focused strategy that is aimed at modifying the emotional meaning and impact of a situation that elicits emotion.” (Gross and John, 2003).

b) “Suppression is a form of response modulation and is defined as inhibiting emotional expression.” (Gross, 1998).

7.3 Hypothesis:

1) There is no significant relation between emotional regulation and executive functioning.

2) There is no significant relation between emotional regulation that is cognitive reappraisal and executive functioning.

3) There is no significant relation between emotional regulation i.e. expressive suppression and executive functioning.

7.4 Sample:

A sample of 90 students, boys and girls (45 each) aged 18 to 25 years old were collected. The sample in this study were collected by ‘proportionate random sampling’ method where the samples are randomly obtained from the population. The sample is considered to be a representative of the population and hence the results can generalize to similar population.

Inclusion Criteria:

a. 18 to 25 years old young adults.

b. Undergraduate and postgraduate unmarried students.

- c. Students from arts, commerce and science faculty.

Exclusion Criteria:

- a. Unwilling to respond to the test.
- b. Major psychiatric disorder

7.5 Tools:

Executive functioning:

Executive Skills Questionnaire- Revised (ESQ-R) is a self-report instrument designed to assess your executive skill. It is a 25 item scale The ESQ- R is the revised version of the ESQ which was developed by Dawson and Guare in 2010

and originally was a 61-item scale. The ESQ- R scale was developed by Julia Strait and Peg Dawson in 2019.

The test has an excellent internal consistency of alpha equal to .91, adequate test-retest reliability for a small subsample of .70 with no effects of time delay on score variability.

For validity convergent, discriminant, and criterion validity was tested. The test

showed moderate correlations with other EF rating scales ($r = 0.56-0.74$) and psychological symptom scales such as stress and anxiety scales ($r = 0.38-0.55$), and a significant correlation with academic engagement ($r = 0.40$).

Emotional Regulation:

The Emotion Regulation Questionnaire (ERQ) is a 10-item self-report measure of two emotion regulation strategies: cognitive reappraisal and expressive suppression. The ERQ scale was developed by Gross and John in 2003.

The test has a significant internal consistency of alpha equal to 0.75 for cognitive reappraisal and 0.74 for expressive suppression.

For validity concurrent, discriminant and criterion validity was tested. Studies by Gross and John showed CR to be related to greater positive affect ($r = 0.42$), mood repair ($r = 0.36$), and life satisfaction ($r = 0.30$), as well as to reduced negative affect ($r = -0.51$) and depression ($r = -0.23$ to -0.29). In contrast, ES was negatively associated with positive affect ($r = -0.33$), mood repair ($r = -0.26$), and life satisfaction ($r = -0.34$), while correlating positively with negative affect ($r = 0.39$), depression ($r = 0.23$ to 0.27), and inauthenticity ($r = 0.47$).

7.6 Research Design:

Descriptive Research Design also known as Exposed Research Design aims to accurately and systematically describe a population, situation or phenomenon. It can answer what, where, when and how questions, but not why questions.

A descriptive research design can use a wide variety of research methods to investigate one or more variables. Unlike in experimental research, the researcher does not control or manipulate any of the variables, but only observes and measures them. Descriptive research is an appropriate choice when the research aim is to identify characteristics, frequencies, trends, and categories. It is useful when not much is known about the topic or problem. Before you can research why something happens, you need to understand how, when and where it happens.

7.7 Statistical Analysis:

The statistics used was Non-Parametric Man Whitney test to find whether there is significant difference in male and female. Then, the Spearman correlation coefficient was used to find the relation between emotional regulation and executive functioning

8. RESULT AND DISCUSSION

Hypothesis:

- 1) There is no significant relation between emotional regulation and executive functioning.
- 2) There is no significant relation between emotional regulation that is cognitive reappraisal and executive functioning.
- 3) There is no significant relation between emotional regulation i.e. expressive

Suppression and Executive Functioning.

To test the hypothesis given above following assumption were fulfilled:

Assumption - 1: Data was randomly collected.

Assumption - 2: Data was checked for normality.

Assumption - 3: Data was not normally distributed.

Table 1 – Hypothesis test summary

Null Hypothesis	Test	Significance	Description
The distribution of EF is the same across categories of GENDER.	Independent-Samples Mann-Whitney U Test	.656	Retain the null hypothesis
The distribution of ER is the same across categories of GENDER.	Independent-Samples Mann-Whitney U Test	.193	Retain the null hypothesis
The distribution of ERCR is the same across categories of GENDER.	Independent-Samples Mann-Whitney U Test	.599	Retain the null hypothesis
The distribution of ERES is the same across categories of GENDER.	Independent-Samples Mann-Whitney U Test	.056	Retain the null hypothesis

The above table shows that the null hypotheses as shown above have been retained. Null hypothesis being retained means that there is no relationship between the variables in the population. The above table

shows that the responses of male and female participants do not differ.

Table 2– Descriptive Statistics

EF	Mean	30.14	1.334
	95% Confidence Interval for Mean		
	Lower Bound	27.49	
	Upper Bound	32.79	
	5% Trimmed Mean	29.49	
	Median	27.00	
	Variance	161.946	
	Std. Deviation	12.726	
	Minimum	9	
	Maximum	65	
	Range	56	
	Interquartile Range	15	
	Skewness	.833	.253
	Kurtosis	.337	.500
ER	Mean	46.08	.938
	95% Confidence Interval for Mean		
	Lower Bound	44.21	
	Upper Bound	47.94	
	5% Trimmed Mean	46.51	
	Median	47.00	
	Variance	80.005	
	Std. Deviation	8.945	
	Minimum	14	
	Maximum	64	

	Range	50	
	Interquartile Range	12	
	Skewness	-.811	.253
	Kurtosis	1.382	.500
ERCR	Mean	29.97	.614
	95% Confidence Interval for Mean Lower Bound	28.75 31.19	
	Upper Bound		
	5% Trimmed Mean	30.50	
	Median	31.00	
	Variance	34.277	
	Std. Deviation	5.855	
	Minimum	9	
	Maximum	39	
	Range	30	
	Interquartile Range	7	
	Skewness	-1.352	.253
	Kurtosis	2.660	.500
ERES	Mean	16.11	.571
	95% Confidence Interval for Mean Lower Bound	14.97 17.24	
	Upper Bound		
	5% Trimmed Mean	16.07	
	Median	16.00	
	Variance	29.699	
	Std. Deviation	5.450	
	Minimum	4	
	Maximum	28	

	Range	24	
	Interquartile Range	8	
	Skewness	.054	.253
	Kurtosis	-.0559	.500

The mean and median of Executive Functioning (Total EF) is 30.14 and 27.00, respectively. While the mean and median for Emotional Regulation (Total ER) is 46.08 and 47.00, respectively. On the other hand, the mean and median of Emotional Regulation – Cognitive Reappraisal (ERCR) is 29.7 and 31.00, respectively. The mean and median of Emotional Regulation - Expressive Suppression (ERES) is 16.11 and 16.00, respectively.

Table 3 – Correlation table

			EF	ER	ERCR	ERES
Spearman's Rho	EF	Correlation Coefficient	1.000	-.108	-.281**	.055
		Sig. (2-tailed)	.	.309	.007	.067
		N	90	90	90	90
	ER	Correlation Coefficient	-.108	1.000	.706**	.832**
		Sig. (2-tailed)	.309	.	.000	.000
		N	90	90	90	90
	ERCR	Correlation Coefficient	-.281**	.706**	1.000	.221*
		Sig. (2-tailed)	.007	.000	.	.035

	N	90	90	90	90
ERES	Correlation Coefficient	.055	.832**	.221*	1.000
	Sig. (2-tailed)	.602	.000	.035	.
	N	90	90	90	90

The above table shows that the Correlation Coefficient of Emotional Regulation (ER) with Executive Functioning (EF) is -.108, while the Significant Correlation is .309. ($r^2(88) = -.108, p = .309$)

The results show that there is no significant correlation between Emotional Regulation (ER) and Executive Functioning, Emotional Regulation – Cognitive Reappraisal (ERCR) and Emotional Regulation- Expressive Suppression (ERES).

DISCUSSION

In line with the Hypothesis our study confirms that there is no significant relation between -

- 1) There is no significant relation between emotional regulation and executive functioning.
- 2) There is no significant relation between emotional regulation that is cognitive reappraisal and executive functioning.
- 3) There is no significant relation between emotional regulation i.e. expressive suppression and executive functioning.

The results contradict the claims of Eliana L. Sudikoff, Madison Bertolin, Danielle N Lordo, and David A.S. Kaufman that closely associates emotional regulation and executive functioning.

The current study provides a new insight into the relationship between emotional regulation and executive functioning in young adults. The data contributes to a clearer understanding that there is no direct relation between emotional regulation and executive functioning as well as emotional regulation (cognitive reappraisal) and executive functioning. But there is an inverse relationship between emotional regulation (expressive suppression) and executive functioning.

While Hoffmann study on self-regulation and executive functioning suggests that emotional regulation is a key factor in determining the course of executive functioning skills in a person, this study indicates that there is no significant correlation between the two and hence signifies that executive functioning operates independently and a person's mental state or methods of emotional regulation has no effect on his /her functioning.

The previous research focused on children showcases that there is a positive direct relationship between executive functioning and emotional regulation, these results indicate that there is no significant relationship between emotional regulation and executive functioning in young adults.

For such a kind of research results there might be possibilities that relationship between executive functioning and emotional regulation varies with age. As the person reaches adulthood it is probable that he/she has conquered emotional regulation skills and hence emotional regulation does not have any effect on executive function. As the person grow, he develops the skills to balance his emotions through self-regulation without affecting his executive functioning. He learns to separate his emotions from his day-to-day functioning. Hence this could be the possible reason for such findings of this research.

9. LIMITATIONS

- 1) The generalizability of research is limited by age as the study only focuses on young adults (18-25 years).
- 2) The reliability of this data is also impacted by the small sample size of 90 people.
- 3) The data was collected only via online mode and no special care was taken to remove confirmation bias.
- 4) Data was collected only from India.

10. SUGGESTIONS

- 1) The study can be done by using different age group sample to make it more generalizable to a larger group of people. The current study was done by only collecting samples from young adults aged 18-25 years old.
- 2) This study can be done by also using large sample size. The current study was concluded by collecting samples from 90 young adults.
- 3) The sample of this study can be drawn by including different groups of people from various countries, ethnicities, races, etc. This will make the study more generalizable to different groups of people.
- 4) The study can be done by replicating it again by using another sample group to make sure that it is reliable.

11. APPLICATIONS

- 1) To advance scientific understanding of human behavior.
- 2) Our decisions and goals are deeply intertwined with our emotions so understanding the way our body regulates our emotions is important.
- 3) This can also be helpful in recruitment at places having high emotional stress where managing emotions without affecting the functioning is important.
- 4) This research will help people manage their emotional reactions and improve their self-management skills.
- 5) It could help psychologists and counselors to determine the mental health of their clients.
- 6) It would help for further research purposes.

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