

Investigating Relationship Between Procrastination and Cognitive Resilience Among Adults

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ABSTRACT

Differences in various age groups and skills have led to research to be done to bridge the gap. In such a pursuit, an experimental study was conducted under the title 'Effect of Procrastination and Cognitive Resilience among Adults'. The population size for the study was 150 – out of which, through random sampling, N = 120 was deduced. The objectives of the study were - to establish a relationship between procrastination and cognitive resilience, to predict the presence of procrastination on cognitive resilience among the respective age-groups. The data was collected through online mode, where a Google form was created consisting of questions from the standardised questionnaires for Procrastination and Cognitive resilience. Tuckman's Procrastination Scale and Smith M. A.'s Cognitive Resilience scale was chosen to administer on the population. The results were analysed through IBM SPSS using correlation and regression. Three hypotheses were postulated and statistical analysis was done on each hypothesis. The results of the study showed low positive correlation between procrastination and cognitive resilience, but it was significant at 0.01 level – for the first hypothesis, which was accepted but cannot be generalised. There was no prediction of presence established between procrastination and cognitive resilience on young adults (N = 60), and so, the null hypothesis was accepted. Whereas, there was a significant prediction of presence between procrastination on cognitive resilience among early middle adults, so the null hypothesis was rejected. From the results it was inferred that, choice of variables was diverse which led to diverse responses across both the age groups.

Keywords: *Procrastination, Cognitive Resilience, Young Adulthood, Early Middle Adulthood, Diversity.*

Psychology, being an interdisciplinary subject constantly draws parallels from various fields of studies. There are various disciplines in Psychology like cognitive, personality, neuropsychology, etc. The amalgamation between two fields will help expand the subject in terms of its approach towards disorders, therapy and better functioning. The following study on procrastination and cognitive resilience belong to the fields of cognitive as well as personality psychology. Procrastination is associated with one's personality, which eventually will affect the entire functioning negatively. Similarly,

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cognitive resilience is something which will help in better functioning with constant stimulation.

Procrastination

Procrastination is defined as the delay of an overt or a covert act that is necessary for personal importance. The delay is voluntary and not imposed by any external force which is irrational and unnecessary and which will lead to potential negative consequences (Klingsieck, 2013). The simple urge to postpone work with a gut of doing it in the last moment is emerging as a plague in the current generation. Procrastination is mostly unintentional in nature and this problem arises as a result of not prioritising the important tasks – such as academic work, office work, household chores – to mention a few.

The root of procrastination comes from *procrastinare*, which means to put off or postpone until another day (DeSimone, 1993). Now, in verb sense ‘pro’ means motion and ‘crastination’ means belonging tomorrow.

Continuous procrastination has high chances of becoming a habit, eventually – with which an individual may feel more under pressure and work more efficiently. Ironically, there was an article published by BBC on the concept, ‘wasting time creatively’. The article cited a study that focussed on establishing a relationship between procrastination and creativity. The study was conducted among American working professionals and they were asked to watch YouTube clips while they had to brainstorm ideas for a new business proposal. To the readers surprise the results spoke that, according to incubation theories, moderate amount of procrastination fosters creativity because it enhances intrinsic motivation and generates new ideas (Grant, 2021). However, the study was conducted under a controlled environment, hence there are chances that employees were aware of how much time were they willing away.

Juxtaposing the above mentioned study in a normal, daily situation environment, very less number of times it happens that an individual is aware of how much time is wasted in scrolling down the internet or being in the state of vegetable.

The funny story of procrastination can be explained as the battle between ‘shall I do it now or shall I do it later’?! Most of the time is gone in deciding the importance of the tasks that are to be undertaken at the present moment. But, from a holistic point of view, if a task is there to do, that means it has some importance! So, in a way, an individual has mastered the art of delaying and pushing it to the end moment, ultimately draining out all the energy in the peak moment. Apart from a general point of view about procrastination, one thing is to be kept in mind that a lot of science has underwent to determine what causes procrastination among individuals of all age groups, especially emerging/young adults. Is it the availability of various resources that make one’s work easier and consumes less time, or is it increased distraction due to technology and media around them? These concepts can be taken up as follow up research.

The scientific background about procrastination includes a battle between limbic system and prefrontal cortex. Limbic system is zone of pleasure experience and so, any work other than an important task would be pleasurable. Whereas, prefrontal cortex is about planning and decision making. So, when the prefrontal cortex sends a signal to do a work and if the work is not pleasure seeking, limbic system tends to postpone the work. So, it is consistent where the brain is not prepared for any upcoming task or when there is no firing of neurons. At that

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situation, any other work than the main work will be pleasure centric and limbic centre comes into the picture. But this process, somewhere still has a battle involved in it.

Apart from this conversation between limbic system and prefrontal cortex – an under-aroused individual will also have difficulty in meeting the cues for deadlines and others are over-aroused who mostly avoid tasks due to anxiety. Certainly, there is an arousal mechanism in the neural base which caters to the underpinning of various cognitive phenomena. Here is what as a researcher one can support brain exercises that are upcoming as a trend to enhance the daily tasks into supportive and strong prefrontal cues to gradually avoid the battle between the two brain systems involved in procrastination.

The possible interventions that are recommend by previous researchers to decrease procrastination are following chunks of work, counselling, self-regulation (to name a few). Interventions are more general for any kind of population, since the kind of distractions are more or less the same. Interventions for procrastination also include Cognitive Behavioural Therapy (CBT) in extreme cases. Internet based CBT proved decreased procrastination. CBT included psychoeducation, cognitive restructuring (Alexander Rozental, 2013). Interventions in family levels can also occur where an observation is done by the parents towards their children – monitoring their activities. As an adult, it becomes an individual responsibility to take care of the routine and prioritising activities.

Now, it is important to understand the concept of taking up responsibilities and one's mental space. Once an individual engages in various fields of work, the tendency is to be piled up with enormous works which come with daunting deadlines. In order to meet one deadline, there is another task waiting to get done and dusted. As much as it is fancy and brain-stimulating to engage in various things, but examining the mental space is also important to understand if one is able to work and spare time for all of that. If the brain is overworked there are high chances of it shutting down. Working for only one category will be tiresome. Switching between the types of works shoots new neurons to resume the work again. For example, once a meeting is over, rather than continuing the work, one can take a stroll, drink water. A question can arise, how is this related to procrastination. It is related in the sense that our brain needs different stimulations in order to work efficiently.

As the topic of mental space was introduced, it is to keep in the mind that it is a subjective topic. Which means it differs from person to person. So, when an individual is poured with work, the mental space may not accept that amount of load. This kind of analysis comes after certain experiences. Hence, when an individual understands the maximum capacity, they can run to, that should be the limit – exceeding which is unhealthy.

In a book titled “Procrastination and Task Avoidance: Theory, Research and Treatment” by Joseph R. Ferrari, Judith L. Johnson, William G. McCown – in the beginning of the chapters itself, the psychological discomfort due to procrastination was mentioned. Many sudden psychiatric disorders emerge, and out of all maladaptive behaviour becomes an unintentional integral part of life and body, as well. The book goes on to argue how it is very less of scientific attention paid to this booming bane in the regular lives, and how it is not so scholarly to discuss about a much general topic like procrastination.

The adjectives associated with ‘chronic procrastinators’ are indolent, unambitious, and lazy which directly hamper the achievement motivation/achievement orientation.

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Various tests and inventories were developed to measure procrastination which is more focussed on the academic population. The popular tests include Atiken Procrastination Inventory, Tuckman Procrastination Scale, Decisional Procrastination Scale, Adult Inventory of Procrastination. These tests focus on academic and work-life procrastination levels. Most of them are self-report inventories that include questions related to the daily like scenarios and simple situations to analyse the levels of procrastination one can have.

The psychology of procrastination would ask to examine the importance of works and especially the space one is in. This sort of scrutiny would lead one to avoid the intentional or unintentional procrastination. The battle of limbic system and prefrontal cortex or the battle between shall I do it now or later can be avoided – with this adaptive self-scrutiny coping method. Some of the not-so-famous psychological phenomena like indecisiveness, feeling overwhelmed and anxiety (as a disorder) can be the root causes for the psychology of procrastination. All the situations and stories of battle that are discussed above, they come down to these basic psychological elements. The unfortunate thing is the lack of scientific evidence to back how catastrophic some of the theoretical terms can be!

Cognitive resilience

Drawing the parallel between procrastination and mental space or neural networks, it leads to the concept of Cognitive Resilience (CR). Understand resilience and cognition makes it easier to build a relationship between the two. A standard definition of resilience was given was Fran Norris, where she proposed that resilience is a process through which, after a disturbance, a set of adaptive capacities are linked to a positive trajectory of functioning and adaptation. It's what the famous adjective goes, being 'self-resilient'. The definition was further pushed to establish a process-oriented model, which includes three layers - adaptation, adaptive capacities and intervention - these are applicable to measure the individual, the community and organisational resilience. With this definition, it can be understood that resilience is a multi-component model in the scientific branch of Psychology.

Cognition, as defined by American Psychological Association (APA) are the processes of knowing, including, attending, remembering and reasoning. The content of these systems includes memories and concepts. Cognition as includes judgment, perception and conscious and unconscious elements. It's a cycle where knowledge is accumulated by various means - consciously or unconsciously, which is then followed by the usage of cognitive elements in our day-to-day lives. Cognition can be approached through various methods.

The amazing point to be understood is that cognition or cognitive sciences are not limited only to the executive functions but it is now a fundamental unit for various other aspects of one's living. Researches have been incessant to introduce terms like cognitive complexity, cognitive flexibility, cognitive reserve, cognitive resilience – to name a few. All these terms have a thin line of difference. But yes, there is a difference. Definitions were given by William A. Scott about cognitive complexity and cognitive flexibility. According to that, cognitive complexity is the number of references and different dimensions that an individual can draw to understand and describe a particular phenomenon. While, cognitive flexibility is the power of adaptability according to any new situation (Scott, 1962).

Of course, the new ideas under cognition will work only with healthy cognitive health of an individual. The executive functions have to be nurtured throughout life which will lead to better self-regulation, better ability to deal with any kind of situation, an internal coping

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mechanism is built. As much as priority is given to physical health, stimulating cognition is also necessary. A study intersected between cognitive functions and BIG-5 personality traits say that, cognitive adaptability has a positive impact on conscientiousness, openness to experience and agreeableness – through which we can infer those cognitive functions are malleable in nature such that, with each new situation they can fire new set of processing techniques. For such kind of ability, constant attention must be paid for a good cognitive health (Aslam, 2017).

Cognitive resilience is the recent amalgamation of cognitive processes and resilience. It is the usage of cognitive/executive functions to be able to handle any situation with the right amount of attention, reasoning and decision making (if necessary), which in turn increases the coping and adaptability strength. The operational definition of cognitive resilience goes as follows – Cognitive resilience is the ability to overcome negative effects on cognitive functioning. The factors associated with it are general positive cognitive appraisal, cognitive capacity to effectively deal with stress, self-efficacy to utilise coping strategies. As the levels of stress increase, cognitive performances decrease. However, prior experience and training to deal with high levels of stress and uncertainty may improve cognitive resilience (Sataal et al. 2008).

Probing into the definition proves how cognitive functions are elastic and malleable in nature.

The neuropsychology discusses the neural aspects of cognitive functions. Such a study was conducted which provided a theoretical and practical framework for the ways to increase cognitive functioning and its related areas that are affected in the process. The mechanism of the increase in cognitive function could be attributed to increased hippocampal and basal ganglia volume leading to greater white matter integrity. Various types of physical exercises attribute to enhanced cerebral flow, decreasing the neuronal decline caused by age and aided in growth of capillaries in the brain. Major benefits were observed in memory and brain volume (Narayanasamy Sai Srinivas 1, 2021). Similarly, many brain stimulating activities like puzzle games, word-building games, analytical games fire more adaptive and new neurons which are helpful in increasing the cognitive abilities.

Cognitive psychology and neuropsychology go hand-in-hand. If the physiological brain is healthy, the cognitive functions will also be productive. Studies for dementia emphasise on the concept of cognitive reserve. It is the capacity of remembering things and later retrieving them. So, cognitive reserve is a direct function of hippocampus. All that an individual experiences or learns goes to the hippocampus whose need will be seen later. So, in order to develop the cognitive reserve capacity, brain needs to get stimulated in terms of intelligence, creativity which are nothing but cognitive functions. Cognitive reserve and neuronal capacity has a positive correlation. Taking enough precautions and care in the early for brain stimulation encourages a positive approach towards life in the later age.

That's the similar case with all the new cognitive functions. A well-functioning physiological brain will certainly lead to all the above mention new approach to cognition in tandem with executive functions. Certainly, cognitive functions work to make one more resilient. Improving conditions of cognition lead to more resilience. The key factor in building cognitive resilience is in learning new material. So, if you find history or music or math interesting and challenging, exploring those topics will help you build cognitive resilience. In this way, building cognitive resilience needs to be a very personal program. A

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good exercise program, good nutrition that supports brain health and an active and fulfilling social calendar have an impact on cognitive resilience.

Relationship between variables

The independent variable of the study was Procrastination and the dependent variable was Cognitive resilience.

Previously, there were some studies conducted to draw a relationship between a personality trait and a cognitive element. But as the research moves forward with new inventions, it is evident how critically the amalgamation of various disciplines come into the picture. In this particular research study, a parallel was assumed between procrastination and cognitive resilience. It is like bringing together the elements of personality and cognition, along with a demography to understand the interdisciplinary nature of various fields under psychology.

Procrastination is like a vacuum. This vacuum is filled with unwanted things like social media scrolling, overthinking, doing unwanted things, etc. When a loop of such activities is created, it leads to gradual decline in cognitive abilities. It is more of a negative relationship that is assumed. So, there is no such research evidence stating any such relationship, but like it was discussed, it is to bridge the research gap.

Significance of the study

The significance of the study is to understand the approach towards daily work in the field of academics and work life, and the adaptability power of the sample. Procrastination can have a negative impact on resilience, sure. But, what about the cognitive abilities of an individual who is a chronic procrastinator. The significance is to understand the impact of procrastination on cognition and their functions as well.

The age group decided as the target population was emerging adults and early middle adults. The numeral ageing is 18-25 and 26-40. The growth, experience, approach pattern changes with age. Emerging adulthood is more of gathering experiences along with taking up responsibilities. This is the age where an individual is exposed to various stimuli and situations that demand a lot of openness and discrimination. Thus, the name of this age-group is given emerging adulthood. By the time an individual reaches 25, there is enough development to deal with various situations and maturity. Then, early middle adulthood is about manifesting the experiences and learnings in practicality. This particular age demands balance towards various fields of life. This is the age of settlement, responsibilities, family, etc. In order to fulfil the roles adequately, an individual must portray the characteristic of adaptability because the nature of this age group which comes with strange situations. There is a chain of experiences one can go through in a quick span of time – one single situation is enough, sometimes. Because of this change and difference, the research tried to draw a parallel between young adults and early middle adults.

Most of the studies were done on academic or work-life procrastination. But pulling a new population along with the old population have many chances of proving and generalising something new. Taking care of cognitive health and giving enough importance to cognition helps in building the executive function, which in-turn don't just help one with academic performance, but also helps in dealing with the day-to-day life. So, resilience emerging from cognition can have more durability in dealing with crisis and new situations.

METHODOLOGY

Sample

The present study was conducted on emerging adults, from 18 to 25 years and early middle adults, from 26-40 years of age; 60 members belonged to 18-25; 45 members belonged to 26-32 and 15 members belonged to 33-40 age. The sample includes 120 adults - 60 males and 60 females from various parts of the country. Snowball sampling was used to collect the data which was followed by systematic random sampling for the collected data. The statistical analysis was conducted on the basis of age-group segregation. Every 4th female and male were removed from the respective age-group list (pertaining to systematic random sampling). Statistical analysis was administered for further interpretation.

These samples' demography belonged to varied professions and academic background. Since the focus is on age-group for the purpose of the study, other details were not much considered.

- Inclusion criteria is that participants who were between the age group of 18 to 40 years were considered for the study. People with English fluency were considered. The participation came from various parts of the country with various academic settings.
- Exclusion criteria is that individuals who were having any mental illness and physical disability were excluded from the study. Individuals who did not have the ability to read/write were not included.

Instruments

Two measures were used in this study,

To measure Procrastination, Bruce Tuckman's Scale for Procrastination (1991) was administered on the sample. It is a 4-pointer Likert scale which include –that's is me for sure, that is my tendency, that's not me for sure, that's not my tendency.

The reliability internal consistency of Procrastination scale is alpha of .90 for the 35-item scale. The Procrastination scale has a good concurrent validity, correlating negatively with other behavioural measures.

Various daily life situations were given in the questionnaire and the subjects had to mark accordingly.

To measure Cognitive Resilience, Smith M. A.'s Cognitive Resilience scale – a self-administering test of 2015 was administered on the sample. It is a 5 pointer Likert scale ranging from 1 – 5 to mark an appropriate score. There are 10 items in the questionnaire This scale predicts optimism about the future, life-goal tracking, satisfaction with productivity and effectiveness, and living according to core values. This self-administered scale can be administered in less than 10 min and has acceptable reliability and validity.

Procedure

The tools were chosen based on the independent and dependent variable, viz. procrastination and cognitive resilience. The inventories were administered through an online mode – where participants were asked to fill their demographic details, followed by their consent for the study and finally the two questionnaires were attached and only one option for each question was supposed to be chosen. The language of the questions was in English, for the convenience of the population. The data was collected through non-probability sampling

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(snowball sampling) method which was further randomised through systematic random sampling. Instructions were clearly provided with respect to filling the questionnaires at every step. Over a wider range of participants participated in the study from across the country. Since it is an online mode, there was a less direct interaction between the researcher and the samples but given the technology, queries were solved in immediacy. Statistical analysis was the final step of the study which was conducted through IBM SPSS.

RESULTS

Hypothesis 1–“There will be a significant relationship between procrastination and cognitive resilience”.

The first hypothesis assumes that there will be a relationship between procrastination and cognitive resilience. The hypothesis was tested using Spearman’s correlation. The results are depicted as follows.

Table 4.2 –Table for Correlation - Descriptive statistics

	Mean	Standard deviation	N
P	92.4167	12.08832	120
CR	32.00083	5.31763	120

Table 4.3 –Table for Correlation

		P	CR
P	Pearson correlation	1	.380**
	Sig. (2-tailed)		<.001
CR	Pearson correlation	.380**	1
	Sig. (2-tailed)	<.001	

** . Correlation is significant at the 0.01 level (2-tailed).

b. Listwise N=120

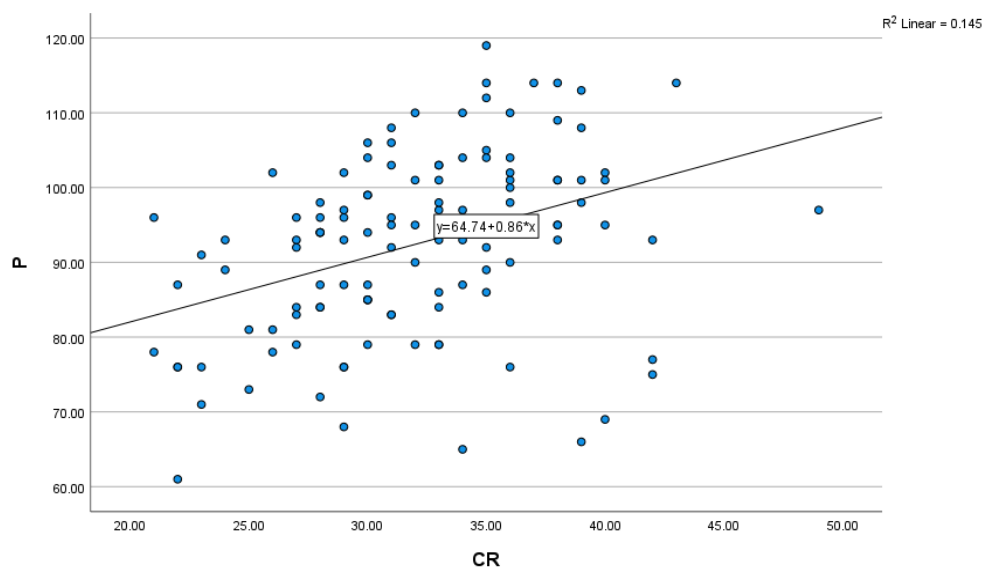


Figure 4.1

From the correlational analysis table, it can be interpreted that the Pearson correlation between procrastination and cognitive resilience was found to have low positive relationship and it is statistically significant at 0.01 ($r = .380$, $p < 0.01$). So, H1 was supported, which

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states that there is a significant relationship between procrastination and cognitive resilience. Hence, the alternate hypothesis is accepted.

Hypothesis 2– “Procrastination will predict Cognitive resilience among emerging adults (age-group 18-25)”.

The second hypothesis of the study assumes that procrastination will predict cognitive resilience among emerging adults – which is the explanatory and respondent variable.

Table 4.4 –Table for Regression – Descriptive statistics

		YA Procrastination	YA Cognitive Resilience
N	Valid	60	60
Mean		91.4833	32.0833

Table 4.5 –Table for Regression

Regression Weights	Beta coefficient	R ²	F	p-Value	Hypothesis supported
P -> CR	.314	.099	6.354	0.014	No

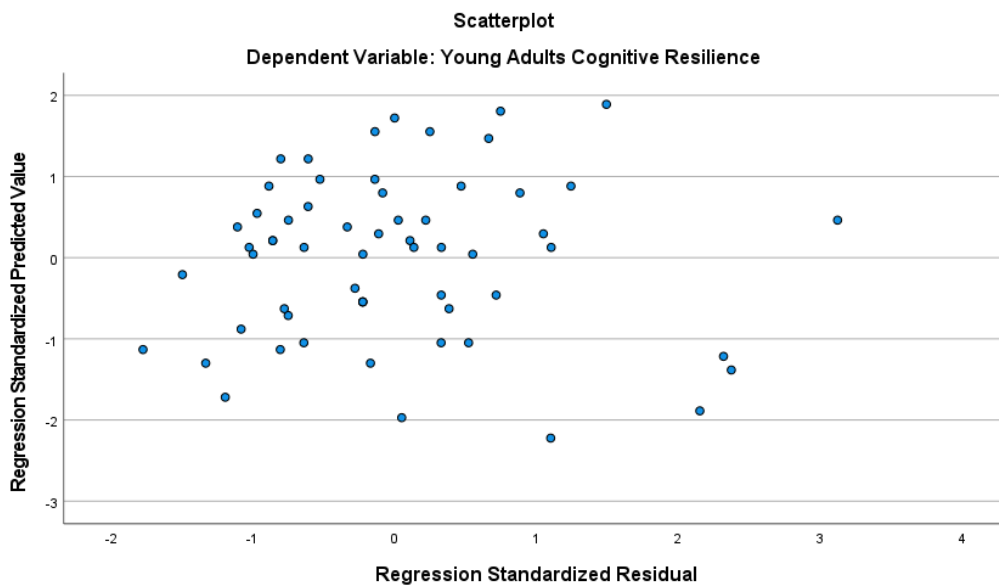


Figure 4.2

From the regression table, it can be interpreted that the dependent variable, Cognitive resilience was not regressed on the predicting variable, Procrastination to test the hypothesis. The predicting/explanatory variable – procrastination did not show a significant prediction. The value of $p > 0.01$, which indicates that it is not significant at both 0.01 and 0.05 levels. Also, the $R^2 = .099$ – when converted into percentage = 9.9% - depicts that the model explains 9.9% of the variance in cognitive resilience.

Hence, the null hypothesis was accepted and alternate hypothesis is rejected.

Hypothesis 3– “Procrastination will predict Cognitive resilience among early middle adults (age-group 26-40)”.

The third hypothesis of the study assumes that procrastination will predict cognitive resilience among early middle adults – which is the explanatory and respondent variable.

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Table 4.6 –Table for Regression – Descriptive statistics

		EMA Procrastination	EMA Resilience	Cognitive
N	Valid	60	60	
Mean		93.3500	31.9333	

Table 4.7 –Table for Regression

Regression Weights	Beta coefficient	R²	F	p-Value	Hypothesis supported
P -> CR	.451	.203	14.779	< .001	Yes

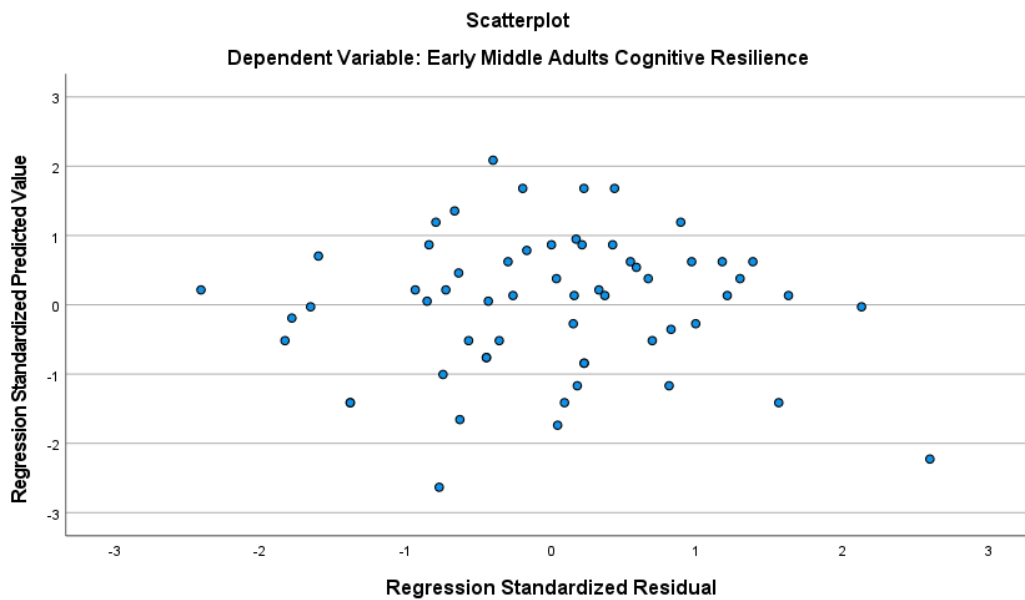


Figure 4.3

From the regression table, it can be interpreted that the dependent variable, Cognitive resilience was regressed on the predicting variable Procrastination

The predicting variable – procrastination showed a significant prediction. The value of $p < 0.01$, which indicates that it is significant at both 0.01 and 0.05 levels. Also, the $R^2 = .203$ – when converted into percentage = 20.3% - depicts that the model explains 20.3% of the variance in cognitive resilience.

Hence, the null hypothesis is rejected and alternate hypothesis is accepted.

DISCUSSION

The study was conducted on the topic, “Investigating Relationship between Procrastination and Cognitive Resilience among Adults”. Two age groups were chosen as the target population, namely – Emerging adulthood (18-25) and Early Middle Adulthood (26-40). The sample size $N = 120$. The main objectives of the study were to establish a relation between the two variables, namely – procrastination and cognitive resilience; to find the prediction value of the predictor/independent variable on the respondent/dependent variable in the respective age-groups and according to the hypothesis.

The purpose of study was defined under three hypotheses which led to the usage of different statistical tools to analyse the data and results. The results outlined different usual and

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unusual findings, which are discussed as follows – in description according to each hypothesis.

The first hypothesis states that, ‘there is a significant relationship between procrastination and cognitive resilience’. Pearson correlation statistical tool was used to establish a relationship between the variables. The results showed that both the variables have a low positive correlation. It is statistically significant at 0.01 level ($r = .380$, $p < 0.01$). Thus, H1 was supported. Hence, null hypothesis is rejected and alternate hypothesis is accepted, which states that ‘there is a significant correlation between procrastination and cognitive resilience’.

Technically, high levels of procrastination must reveal low cognitive resilience. But this study showed a low positive correlation – which indicates that if procrastination increases, cognitive resilience also increases – which in turn, contradicts the actual nature of the variables. There was a similar study conducted on teacher candidates – which also revealed same results that increase in procrastination shows increase in cognitive resilience. There is minimal evidence for this kind of result. Literature provides a negative as well as a positive postulation regarding the effects of procrastination on cognitive resilience and psychological resilience.

The reasons that can be possibly related to this kind of result is a definite gap between the nature of questionnaires. According to these results, the research gap has to be bridged in terms of cognition and personality domains, especially the neglected areas like the variables in this study. Some extraneous variables have also played a major role in the outcome of this kind of results.

The second hypothesis stated that, ‘procrastination will predict cognitive resilience among emerging adults (age-group 18-25)’. Regression analysis was used to understand the prediction of one variable over the other variable. The results showed that procrastination did not have any significant impact on the cognitive resilience among emerging adults. The value of $p > 0.01$, which indicates that it is not significant at both 0.01 and 0.05 levels. Also, the $R^2 = .099$ – when converted into percentage = 9.9% - depicts that the model explains 9.9% of the variance in cognitive resilience. These results do not predict any relationship between procrastination and cognitive resilience among emerging adults. Hence, the null hypothesis is accepted and alternate hypothesis is rejected – which states that ‘procrastination will predict cognitive resilience among emerging adults’.

Again, an increase in procrastination should definitely show less cognitive resilience. But, for the young adulthood age-group, it is not significant which leads to various millennial explanations. An article written by Jaques Van Den Broek on the topic ‘Gen-Z and Millennials demonstrate resilience, he emphasised that there is the showcase of increased levels of resilience during unprecedented situations in the gen-z and millennials (broek, 2020). The article had research evidence where 6000 working professionals from across the world, when given a survey to understand their resilience, 85% showed well adaptability towards new-situations and better skills in handling crisis.

But, when it comes to procrastination, there is no evidence which states the increase in procrastination not affecting cognitive functioning. Thus, looking at the current times and the brain functioning of the young adults – it can be assumed that last moment creativity may boost firing of the neurons, henceforth there is an increased resilience, as it is the state

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of adapting crisis situation. The possible reasons for this kind of unusual outcome can only have a base of certain assumptions from the perspective of a researcher. The environmental factors were under least/no control. The trend of questions had less relationship. While procrastination spoke about academics and work, cognitive resilience is a delicate term catering to the emotional and personality aspect of an individual.

The third hypothesis stated that, 'procrastination will predict cognitive resilience among early middle adults (age-group 26-40)'. Regression analysis was used to understand the prediction one variable over the other variable. The results showed that procrastination has a significant prediction on cognitive resilience among the early middle adults. The value of $p < 0.01$, which indicates that it is significant at both 0.01 and 0.05 levels. Also, the $R^2 = .203$ – when converted into percentage = 20.3% - depicts that the model explains 20.3% of the variance in cognitive resilience. These results state that there is a high predictive relationship between procrastination and cognitive resilience. Hence, the null hypothesis is rejected and alternate hypothesis is accepted which states that 'procrastination will predict cognitive resilience among early middle adults'.

A study conducted on procrastination and self-regulation among middle adults reveals that, pursuit of goals becomes difficult with decrease in self-regulation due to procrastination. There is a significant decline in other factors like self-efficacy and motivation. This study is a support to the derived results. As much as the young adulthood has the tenacity to pull a number of set goals with good amount of resilience (an assumption), middle age has many pre-set responsibilities to be fulfilled. Thus, being negligent and not prioritising works will have an impact to the multidisciplinary approach to the life-span development (Freund, 2018).

From the above discussion, it can also be inferred that there is no much significant difference between the nature of procrastination among the emerging adulthood and the early middle adulthood. The ageing determines various involuntary patterns of lifestyle. Experiences also play a major role in categorising and prioritising duties, at the same time keeping one's resilience and regulation healthy. The current study will help to design intervention programs, especially for the emerging adults, since the power of perseverance will decrease with growing years and increasing responsibility and procrastination would take a toll on one's overall lifestyle and health. This study will navigate a path to induce self-care measure in order to avoid procrastination and increase positive cognitive elements.

CONCLUSION

The study was conducted under the title "Investigating Relationship between Procrastination and Cognitive Resilience among Adults".

The purpose of the study was to investigate a possible predictive relationship between procrastination and cognitive resilience among two age groups – emerging adulthood and early middle adulthood. The results show that there is low positive correlation between procrastination and cognitive resilience.

The predictive relationship between procrastination and cognitive resilience among the emerging adults was nullified, which implies that the presence or absence of procrastination does not predict and in turn affect cognitive resilience. So, it can be concluded that they are two different entities for the emerging adults.

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For the other age group, there was a significant predictive relationship established between procrastination and cognitive resilience, which implies that the presence or absence of procrastination predicts and in turn affects cognitive resilience. It can be concluded that early middle adults have a holistic approach towards all the domains of one's life – personality, cognitive (according to the study).

The above obtained results can be taken forward to bridge the research gap between various sub-fields of psychology. An integrated approach towards the multidisciplinary subject will route in creating a strong research base, ultimately leading to new therapy and intervention invention.

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