



INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

A CORRELATIONAL AND A COMPARATIVE STUDY OF RESILIENCE AND STOICISM AMONG INDIAN ADULTS

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Abstract: This research aimed at finding a relationship between Stoicism and Resilience among Indian Adults as well as identifying any gender difference in these two variables. It focused on studying whether Stoicism and Resilience are correlated or not, as Resilience has been immensely stressed upon by this ancient school of thought. A sample of 93 Indian participants, between ages of 20 to 40, was considered for this study. The analysis of the data was done with the help of SPSS version 20.

The correlation between the two variables was calculated with the help of Pearson Product Moment Correlation and the Gender difference in Stoicism was assessed using Independent Samples t-Test, while Mann-Whitney U test was used to assess the gender difference in Resilience. These tests were run on SPSS and the results indicated that there is no (very poor) correlation between Stoicism and Resilience. Moreover, the results also demonstrated that there is no gender-based differences with regards to Stoicism and Resilience.

I. INTRODUCTION

Ancient philosophy has identified and described a wide range of possible approaches to life which are supposed to enable overall wellbeing. One among these philosophies is Stoicism. The stoic approach to life primarily focuses on emotional restraint and an overall orientation towards meaning in life. It is a Greek school of thought, a philosophical movement in the Hellenistic and early Roman period, that flourished for over 5 centuries. It was not only a belief system practiced among ancient Greeks but also a way of life. Unfortunately, in modern days its definition has been reduced to encompass a trait or a coping mechanism, like having a "stiff upper lip" or being "indifferent" or having nonchalant attitude towards any stressor or hardship in life. Although these factors do make up a fraction of the

teachings and values of Stoicism, however, these do not entirely cover the core essence of this ancient philosophy.

Stoicism was introduced as a means to satisfy the needs of the ancient Romans at the times when they were faced with existential insecurities and various turbulences. Its core focus was on 4 virtues namely Wisdom, Courage, Temperance, Justice and how one who possesses these virtues as well as exercises them can live a more fulfilled life. The Stoic philosophy revolves around the premise that, all the hardships in life are inevitable. No man can avoid despair, misery and grief, but what they 'can' do is focus on how to remain emotionally resilient, and accept what life has to offer them with great virtue and integrity. Stoicism extensively emphasizes on how being Resilient can be the key to achieving Eudaemonia hence the aim of this study is to discover whether or not Stoicism and Resilience are connected.

Resilience can be defined as the ability to bounce back from setbacks as well as the ability to function and cope in adverse situations. It is what provides people with the emotional and psychological strength to deal with a difficult and stressful life circumstance. Life has its peaks and its dips, and the dips can sometimes take a huge toll on a person's mental and physical well-being. Studies have shown that people who are Resilient tend to face these inescapable circumstances with great strength and courage and are able to start afresh after a major setback. These people are also proven to live a comparatively happier life than those who lack Resilience.

Even though Stoicism promotes resilience in its teachings, not much research has been carried out to describe the connection between the two constructs. Some researchers have even gone to the extent to call Stoicism "Philosophical Resilience", but unfortunately adequate data that shows whether a relationship exists between the two or not, is lacking. While trying to search for similarities between the two constructs, it was found out that Stoicism is widely viewed as a defining attribute of masculinity, and that researchers proposed that females are not as stoic as males. Women are more connected to their "Emotional" sides as compared to men who tend to be more "Emotionless" thus more stoic. Some studies, on the other hand, have indicated that there is no substantial difference between males and females with respect to having stoic ideologies. Currently, however, it is unclear whether these gender differences are by-products of measurement tools or whether actual differences in stoic ideology are expressed. Therefore, the aim of this study is to identify whether or not Stoicism and Resilience are correlated and to provide further information on gender differences in the sample.

II. REVIEW OF LITERATURE

What is resilience? Why is it so important? How do you know if you're resilient enough? How do I become more resilient? These are some questions that have recently engaged the attention of researchers globally. In psychology and psychiatry, resilience is very broadly defined as an individual's positive adaptation to life's stressful and adverse social situations (*Pecillo, 2016*). It is a positive growth or adaptation that facilitates rates of recovery following periods of homeostatic disruption. The concept describes a dynamic process of a person's capacity to cope under risk factors. Risk factors can be all the stressful life events in an individual's life which can lead to an increased possibility of a person to develop a mental health condition (*David G. Angeler et al., 2018*). Various definitions have been offered over the years to describe this emerging concept, and they usually propose that resilience is either a trait or an outcome. These competing definitions have resulted in the formation and development of two independent streams of research, each of which claims to be studying resilience. On one side, there are researchers who consider resilience as something that an individual possesses; a trait. On the other side, are those who believe that resilience can only be demonstrated through one's reactions to adverse events; a reaction (*Harms et al., 2018*). Either way, various types of research propose that resilience is what gives people the emotional strength to cope

with trauma, adversity, and hardships. Resilient people tend to utilise their skills, strengths and resources to overcome challenges and work through hardships. While, people who lack resilience are more likely to feel overwhelmed or helpless, and probably rely on unhealthy coping strategies (such as avoidance, isolation, and self-medication). Also, people who lack this trait are more likely to fall prey to the stressors in life and suffer great psychological strain. As the study conducted by (*María Ángeles García-León et al., 2019*) depicted that people who showed lower levels of resilience demonstrated higher levels of psychopathological symptoms. This predominantly infers that resilient people tend to be happier and more in-sync with their psychological well-being. Since resilience is one of the factors to leading a happier life and building mental strength to cope with stressors, it is reasonable to promote Resilience Training Exercises, especially considering recent times where people are exposed to the challenging and stressful life events that the Pandemic 2020 has introduced. In their journal, "Anxiety, depression and stress during the COVID-19 pandemic: Results from a Cross-sectional Survey", (*Jasmine Turna et al., 2021*), found how COVID-19 had negative effects on the mental health of individuals in Canada and the United States. "Almost half (43%) reported previous MH treatment and 31% met criteria for GAD, 29% for MDD and 63% reported significantly high levels of stress" -(*Jasmine Turna et al., May 2021*).

After concluding that resilience is a contributing factor of well-being and happiness, this paper aims at highlighting a philosophical phenomena which has resilience as one of its core values. Stoicism, being the basis of modern psychotherapeutic techniques as well as providing the framework for different psychotherapies like CBT and REBT, has recently been reduced to a trait or a coping style. *Donald Robertson*, in his book "How to Think like a Roman Emperor" distinctly mentions two separate definitions for it. First is what he calls having a "stiff upper lip" or an advice to "suck-it-up" or simply being indifferent and emotionless, which according to him is the reduction of what Stoicism encompasses. The second definition, talks about Stoicism as an entire school of Greek philosophy that flourished for 5 centuries in the early Roman Empire. It's form of Stoicism, he talks about when we referring to Seneca, Epictetus, and Marcus Aurelius, and the use of Stoicism for modern-day personal development, etc. Unfortunately, this school of thought is either unknown or misunderstood and has seen a great deal of injustice in the hands of English language. In its rightful place, Stoicism is a tool that assists a person to achieve self-mastery, perseverance, and wisdom: something one can use to live a great life.

It all began around 304 BC, when a merchant named Zeno of Citium, faced a shipwreck on a trading voyage. He lost nearly everything and while making his way to Athens, he was introduced to philosophy by the Cynic philosopher Crates. He spent his entire time in the Greek libraries and studied all the works of great philosophers like Socrates and Plato. He eventually started teaching others whatever knowledge about life and living he acquired and took part in discussions with his disciples. These teaching sessions took place at the Stoa Poikile, translated as "painted porch", where Zeno and his disciples gathered. While his followers were originally called Zenonians, the ultimate credit goes to Zeno's humility and modesty that the philosophical school he founded, did not ultimately carry his name (*Page 62, Stoicism and Art of Happiness, D. Robertson*) and eventually came to be recognised as Stoicism.

"Stoicism has seen a revival in recent years and offered practical advice on living aimed at promoting inner freedom and a good internal mental state not dependent on external events or circumstances" (*J. Kelly, 2020*). Stoicism, as mentioned earlier, flourished for five centuries and became the dominant philosophy of educated Romans as it satisfied the needs of people experiencing turbulence and existential insecurities. But how can a 2000-year-old belief system be applicable to a modern individual in a time when living standards and security are so much better? I believe the answer lies in the fact that people in modern times are exposed to life challenges not experienced by their ancestors, putting them uniquely at risk of the psychological distress. Unsurprisingly, work-related stress and mental health problems are more prevalent in recent times than ever before.

Additionally, the chances of people hitting burnout has reached shockingly high levels. With its soul focus on our freedom to shape our inner mental events, Stoicism seems to be well adapted to counter these life stressors and promote inner wellbeing. “Coming from Seneca and Epictetus, the notion of remaining calm and reserved in tense circumstances illuminates what we refer to today as being Resilient—enduring in the face of challenges” (*Annette M. Holba, 2016*). This ancient school of thought has always promoted Resilience in its ancient Stoic scriptures. In the Stoic texts, Marcus Aurelius (161180/1992) describes resilience through a metaphor of a spring of water:

“They kill you, cut you in pieces, pursue you with curses.’ What has this to do with your understanding abiding pure, sane, temperate, and just? As if a man should stand by a sweet and crystal spring of water and curse it, but it never ceases bubbling up in water fresh to drink, and if he throws in mud or dung, it will quickly break it up and wash it away and will in no way be discolored. How then shall you possess an ever flowing fountain, not a mere cistern?” (*Meditations by Marcus Aurelius, p. 60*). In this metaphor Marcus Aurelius has referred to the mud attacking as an abusers’s attacks, while denoting that the reader should always embody a spring of water. Always bubbling up and shooting out fresh water, refusing to get discolored, never stopping what it’s good at. In this metaphor, he illustrates a resilient person and symbolizes him as a spring, and represents their goodness by the endless water. According to him, the most prominent trait of a resilient person is his will to continue fighting, and his inability to be defeated or tainted (*A. Mukesh, 2020*). Seneca, yet another great philosopher and a believer of this school, talks about misfortune and how it helps a person become mentally and physically resilient. “I judge you unfortunate because you have never lived through misfortune. You have passed through life without an opponent—no one can ever know what you are capable of, not even you” (*Holiday, Ryan, The Daily Stoic*). Here Seneca urges the reader to accept the life’s adversities and challenges as they have the capacity to help a person connect with his inner strengths. In another section of *Meditations*, Marcus Aurelius continues with a different metaphor, in lines with what Seneca denotes, stating “delve within; within is the fountain of good, and it is always ready to bubble up, if you always delve” (p. 50). Here he points towards the goodness and virtue every person harbours in them and can rely on in difficult times. Being in a disastrous situation leads to virtue, as it gives you a proper insight of your inner strengths and abilities. Adversities can prove beneficial because they urge a person to delve deep into their abilities and learn to manage the most difficult of situations. Pointing to the second definition of resilience that proposed that it is in fact an outcome, the philosophers persuade the readers to embrace problems in order to become more Resilient.

Epictetus, however talks about changing your perspective when looking at difficult situations. He wrote “It is not events that disturb people but their judgements concerning them” (*Discourses, Epictetus*). One of the central elements of Resilience is perception. Events are not traumatic until we perceive them as traumatic. The Stoics emphasized on how people should change the way they see an event- you either find an event traumatizing or shift your focus and look at it as a learning experience. A change in your perception would make you more Resilient. This idea has been the central theme of psychotherapies like CBT and REBT.

Shifting the focus from establishing a core philosophical relation between Resilience and Stoicism towards identifying a psychological relation, I turn to *Christopher Gill* who in his article “*Building Resilience Today: How can Ancient Stoicism Help*” talks about how Stoic thinking can relate to modern discussions of resilience. Did the stoics have in mind what we understand today as Resilience? In a recent survey paper *Ostrowski (as cited in Gill, C., 2016)* denoted that “most characteristics of resilience at the individual level resemble features often regarded as marks of wisdom in stoicism”. These features are benefit finding, sense making, problem focused coping and so on. Similarly clear links can be made between traits connected with resilience in young people (“*Oginska-Bulik and Juczynski*” as cited in *Gill, C., 2016*) and markers of virtuous characters in

stoicism. Highlighting these points of resemblance, I do not intend to suggest that ancient stoic and modern psychological thinking are identical. My suggestion is simply, at this point, that the fit is close enough to justify examining stoic ideas further to see whether they can help in modern investigations into the basis of resilience.

Lastly, Stoicism has widely been accepted as a masculine trait. It has, in the past, been thought to be strongly tied to “traditional conceptualizations of masculinity” (Perry, Stacy, & Pepper, 2019). With research indicating some support for this view (Pathak et al., 2017), nevertheless, the differences between male and female respondents was not as substantial as expected (Pathak et al., 2017). In all honesty, this school of thought is very old and no one is going to pretend that ancient culture in general was feminist, because it wasn't. So inevitably when we're reading ancient texts and philosophies, whether it's Aristotle or Socrates, the male gender and male activities will tend to be emphasized more. But it has to be seen in the kind of general context. And so if we're looking at stoicism in its foundational ideas, I would rather say it's gender-free, multinational and multiethnic. Nonetheless, this study would provide further information on whether Stoicism and Resilience are really masculine traits.

Theorists have explained in depth about the stoic teachings and how it can guide a person to build resilience but very few researchers have gone the extra mile to show if having stoic ideologies do have an impact on a person's resilience (strictly talking about resilience as a trait). Lack of proper research is seen in the area of correlational studies between Resilience and Stoicism. My study would aim to fill this gap by trying to discover if both of these constructs are correlated or not.

Resilience is the key towards living a happy and well-being life and many articles have depicted Stoic beliefs to contribute towards strengthening this trait. Finding a relationship between the two would help modern psychology to administer more of stoic mindfulness techniques to those going through various life stressors. Moreover, I believe that modern psychology has become more biological in nature and incorporating philosophical teachings in modern psychotherapies would help bring the study of mind and behavior, a step closer to its roots.

III. RESEARCH METHODOLOGY

The aim of the study is to find out relationship between Stoicism and Resilience among Indian adults and also to assess whether there are any gender differences in Stoicism and Resilience among Indian adults. Variables of the study contains dependent and independent variable. Gender is the independent variable while Stoicism and Resilience are the dependent variables in this study. The Oxford English Dictionary defines Stoicism as “an ancient Greek school of philosophy founded at Athens by Zeno of Citium. The school taught that virtue, the highest good, is based on knowledge; the wise live in harmony with the divine Reason (also identified with Fate and Providence) that governs nature, and are indifferent to the vicissitudes of fortune and to pleasure and pain”. The APA's definition of resilience is “The process of adapting well in the face of adversity, trauma, tragedy, threats, and even significant sources of stress” (American Psychological Association Help Center, as cited in Stoicism as a model of psychotherapy by Mukesh. A)

3. 1. POPULATION AND SAMPLE:

The sample included a total of 93 Indian Adults, 46 male and 47 female participants. The age range of the participants was from 20-40 years. Every participant was required to fall under the age range of 20 to 40 years and had to be an Indian citizen only. Participants who were below the age of 20 and above the age of 40 years were excluded from the study. Participants who were NRI's were also excluded from the study. Convenience Sampling Technique was used as a method of sampling in this study.

3.2. RESEARCH DESIGN:

This is a Correlational as well as Comparative Research and the method used to gather data is the survey method, where the participants were required to fill an online questionnaire through google forms.

3.3. TOOLS FOR ASSESSMENT:

The PW-SIS is a 12-item, 5-point Likert scale with responses ranging from 'disagree', to 'agree'. It assesses Stoic Ideology under 4 different domains, namely Stoic Taciturnity, Stoic Endurance, Stoic Serenity and Stoic Death Indifference. The responses of the participants ranged from 0 (disagree) to 4 (agree). Two of the items (items no. 4 and 10) in the scale were scored reversely. Cronbach's alpha was 0.78 and ranged from 0.64 to 0.71 for the sub-scales. The individual scores of the participants were interpreted through calculating the Range for the group.

The Resilience Scale-14 (RS-14), is a short version of the RS developed by Wagnild and Young (1993), to provide clinicians and researchers a shorter instrument to reduce participant's burden. The RS-14 consists of 14 items selected from the original RS. The internal consistency of the RS-14 has been reported to be excellent ($\alpha = .93$) and it correlates strongly ($r = .97$) with the original RS. The possible total scores of the RS-14 range from 14 to 98 and have been scored (Wagnild, 2009) as follows:

- 14-56 = Very low
- 57-64 = Low
- 65-73 = On the low end
- 74-81 = Moderate
- 82-90 = Moderately high
- 91-98 = High.

The questionnaire consisting of the both the scales, was distributed via Google forms, considering the recent events of the Pandemic and the Lockdown, and was identified as the most convenient means of reaching out to a large number of people in a short period of time. The sample was briefed about the purpose of the study and their consent was taken before the administration of the test. Moreover, confidentiality was ensured

IV. DATA ANALYSIS AND RESULTS

The data in the present quantitative research study done on the "Relationship between Stoicism and Resilience" and "Gender differences in Stoicism and Resilience" was analyzed using the SPSS version 20. The total number of participants for this study was 93, comprising of 46 male and 47 female participants. The levels of stoicism and resilience in all the participants was assessed using the *Pathak-Weiten Stoic Ideology Scale* and the *Shortened Version of Resilience Scale (RS-14)*, respectively.

4. 1. PW-SIS:

This scale which was recently constructed by Pathak and Weiten is a 5-point Likert scale, consisting of 12 items, which assess the levels of Stoic Ideology in a person under 4 domains.

- Stoic Taciturnity is the belief that a person should always conceal his/her emotions and problems from others.
- Stoic Endurance is the belief that one should endure all the pain and suffering that life has to offer him/her without complaining.
- Stoic Serenity is the belief that one should avoid feeling strong emotions at all times.
- Stoic Death Endurance is the belief that one should never fear or avoid death and should perceive it as a new beginning.

The responses of each participant were scored from 0 (disagree) to 4 (agree). Item numbers 4 and 10 of this scale were scored reversely. The individual scores of the participants were interpreted by calculating the Range for the group. Table 4.1.1 shows the descriptive analysis of the scores of all the participants in PW-SIS.

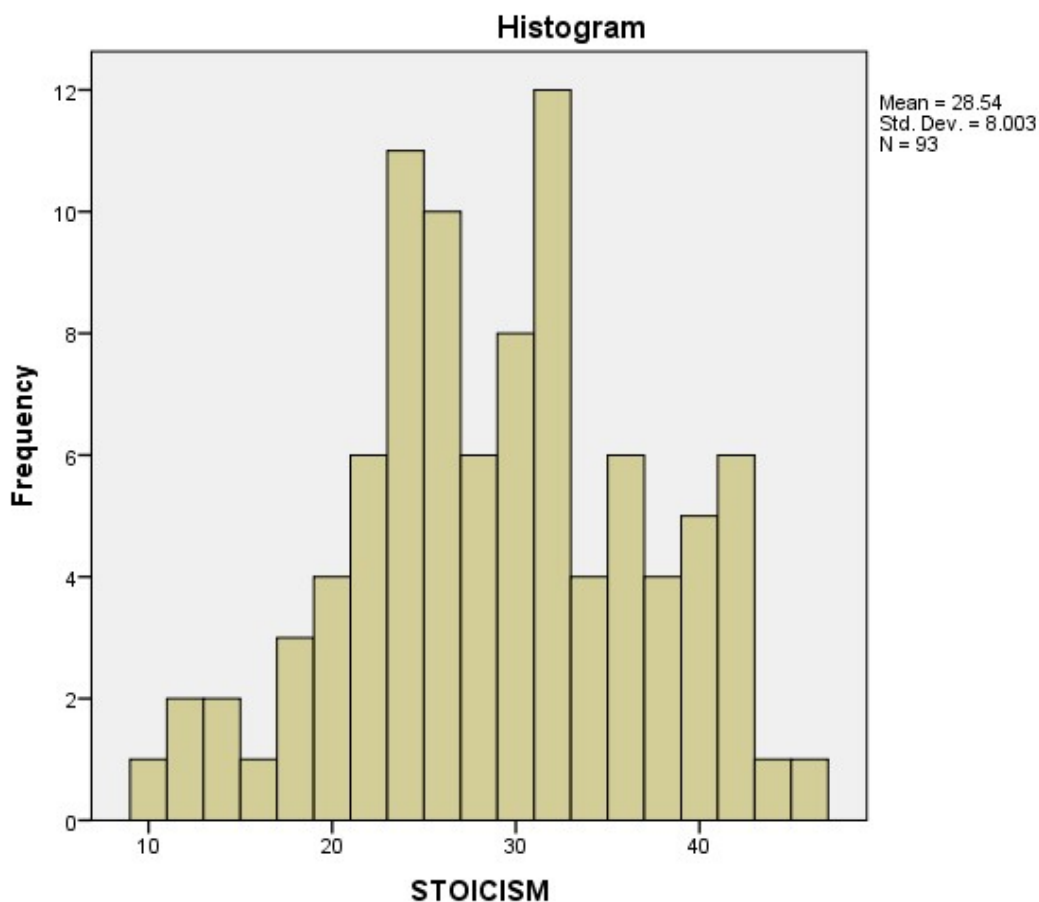
Table 4.1.1. Showing the Descriptive Analysis of Stoicism

	N.	Min.	Max.	Mean.	S t d . Dev	Skewness		Kurtosis	
Stoicism	Stats.	Stats.	Stats.	Stats.	Stats.	Stats	S t d . Error	Stats.	S t d . Error
	93	10	45	28.54	8.003	-.076	.250	-.492	.495

Table 4.1.2. Showing the data obtained by using Shapiro Wilk’s Test of Normality for Stoicism

Stoicism	Test of Normality		
	Statistics	df	Significance
	.984	93	.336

The table above demonstrates that the Shapiro Wilk’s Test of Normality is .336 for Stoicism indicating that the data is normally distributed as the Significance value is greater than 0.05. The graphical representation of the same has been depicted with the help of the following histogram.



As per graph 4.1.2. A, the data is seen to be normally distributed in a curve.

4.2. RS-14:

RS-14 is the shortened version of the original Resilience Scale constructed by Wagnild and Young, which consists of 14 items, and is a 7-point Likert scale. The scores range from 1 (strongly Disagree) to 7 (strongly Agree). All items in this scale are positively scored. A few of the items in the scale are, “I usually manage one way or the other”, “I am determined”, “My life has meaning”, “When I am in a difficult situation, I can usually find my way out of it” etc. Table. 4.2.1 shows the Descriptive Analysis of the scores of the participants in the shortened version of the Resilience scale, RS-14.

Table. 4.2.1 showing the Descriptive Analysis of Resilience

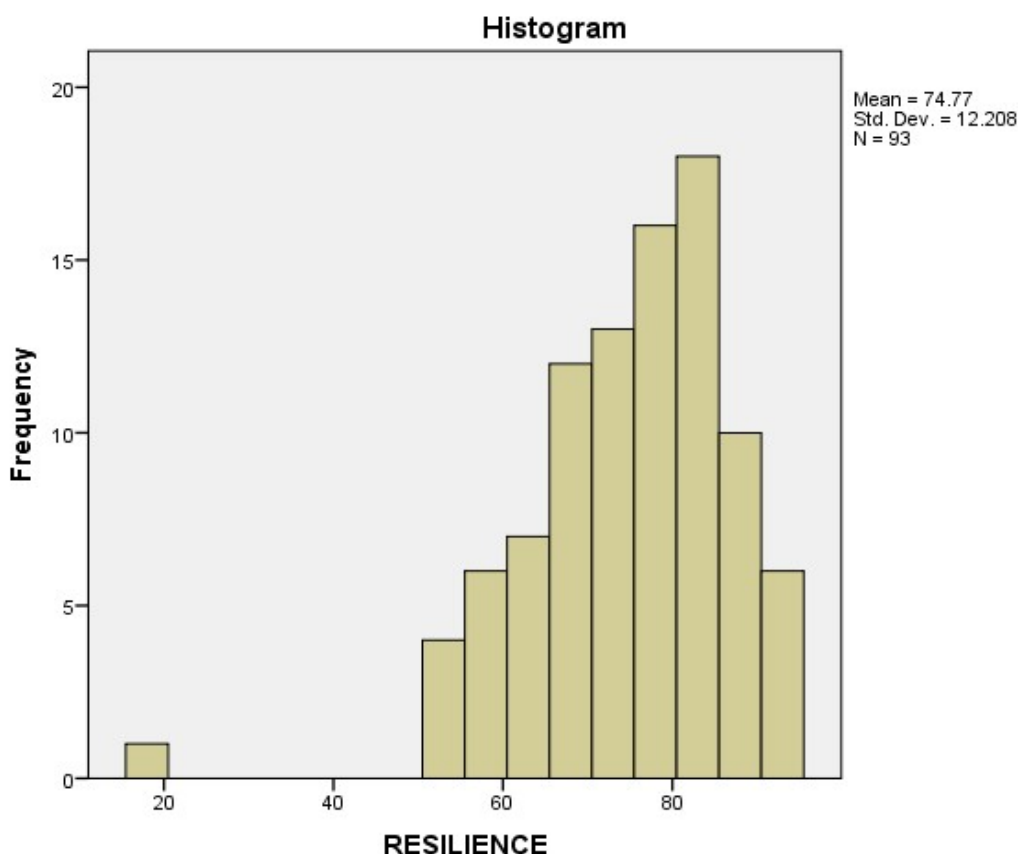
	N.	Min.	Max.	Mean.	S t d . Dev	Skewness		Kurtosis	
Resilience	Stats.	Stats.	Stats.	Stats.	Stats.	Stats	S t d . Error	Stats.	S t d . Error
	93	18	95	74.77	12.208	-1.295	.250	3.834	.495

The table above demonstrates the Mean, Standard Deviation, Skewness and Kurtosis of the second variable that is Resilience, assessed with the help of RS-14

Table 4.2.2 Showing the data obtained using Shapiro Wilk’s Test of Normality for Resilience

Resilience	Test of Normality		
	Statistics	df	Significance
	.921	93	.000

Table. 4.2.2 Demonstrates that the Shapiro Wilk’s Test of Normality is .000 for Resilience indicating that the data is not normally distributed as the significance value is less than 0.05. The graphical representation of the same has been provided below.



In the graph 4.2.2.B, the data can be clearly observed to be skewed heavily towards the right side of the curve.

Because Stoicism was normally distributed as depicted in the Shapiro Wilk Test of normality, and Resilience was not, Parametric test will be used to find the gender difference in Stoicism. Thus, an Independent Sample T-test will be used to analyze the gender differences in Stoicism. However, a non-Parametric test will be used for the analysis of gender difference in Resilience as the data was not normally distributed, as illustrated by the normality test.

Before commencing with the gender comparison between the two constructs, Pearson Product Moment Correlation is administered in order to find the correlation between both the variables.

4.3. PEARSON PRODUCT MOMENT CORRELATION TO ASSESS THE RELATIONSHIP BETWEEN STOICISM AND RESILIENCE:

Table 4.3.1. Showing the Descriptive Statistics of Resilience and Stoicism in Males and females

	Mean	Std. Deviation	N
Stoicism	28.5376	8.00348	93
Resilience	74.7742	12.20845	93

The table above shows the mean scores and standard deviation for both the variables i.e., Stoicism and Resilience in all the 93 participants.

Table. 4.3.2 showing the correlation between Stoicism and Resilience

Variables	Resilience	Stoicism
'r' value		.078
Significance (2-tailed)		.459
N		93

As observed in the table above, the correlational coefficient between Stoicism and Resilience is 0.078 which is interpreted as a poor correlation.

The data is not significant at either 0.05 or 0.01 levels. However, the direction of the correlation is positive but due to the poor relationship between the two variables, the direction is overlooked. Hence, the null hypothesis "There is no significant relationship between Stoicism and Resilience in Indian Adults" is accepted.

4.4. INDEPENDENT SAMPLE T-TEST TO SHOW THE GENDER DIFFERENCES IN STOICISM:

Table. 4.4.1 showing the Descriptive Analysis of the of Male and Female scores in Stoicism

	Gender	N	Mean	Std. Deviation
Stoicism	Male	46	29.83	1.086
	Female	47	27.28	1.236

The table above represents an independent sample t-test done to check the gender differences present in Stoicism. The sample for the study comprised of 93 Indian Adults of which n=46, were male and n=47, were female. Similarly, the score on Stoicism showed that the male group has higher M=29.83, but lower SD= 1.086 than the female group M=27.28, SD= 1.236.

Overall, not much difference can be seen in the mean and SD scores of both males and females.

Table 4.4.2, showing the result of the independent sample t-test to compare the levels of Stoicism in men and women.

Stoicism	t-test for equality of means	
	t	significance
	-1.547	.125

The table above shows the results of the comparison of males and females on Stoicism. The t-value obtained for both males and females in Stoicism Ideology Scale is -1.547. The results obtained in above drawn table shows that there was no significant difference between the males and females with respect to Stoicism. Simply put, being male or female does not affect the levels of Stoicism in a person. Thus, the null hypothesis “There is no significance difference between the means of Males and Females in Stoicism” is accepted.

4.5. MANN-WHITNEY TEST TO SHOW THE GENDER DIFFERENCE IN RESILIENCE

The third hypothesis claims that there is no significant gender difference in Resilience and in order to test this hypothesis, a non-parametric test was run as the data for Resilience was not normally distributed as per the Shapiro Wilk test of normality. Thus, the non-parametric test equivalent to the independent sample t-test, has been used in this case i.e., Mann-Whitney Test.

Table.4.5.1 Showing the Mean Ranks for male and female scores in Resilience.

	Gender	N	Mean Rank	Sum of Ranks
Resilience	Males	46	51.18	2354.50
	Females	47	42.90	2016.50
	Total	93		

In the table above the mean rank score of males is 51.18 and the mean rank score of females is 42.90. because the data was not normally distributed it is difficult to find out if the numerical difference between both the ranks are statistically significant or not. Which is why the Z statistics and the p value is observed which is demonstrated in the Mann-Whitney Test Statistics table below.

Table. 4.5.2 showing the Mann-Whitney Test Statistics table for Male and Female scores in Resilience.

	Resilience
Mann-Whitney U	888.500
Wilcoxon W	2016.500
Z Statistics	-1.481
Asymp. Sig. (2-tailed)	.139

In the above table the Mann-Whitney U value is 888.500, Z value is -1.481 and the p-value is .139 which is greater than 0.05. Thus, the null hypothesis that states “There is no significance difference between the means of males and females in Resilience” is accepted

V. DISCUSSION

The present Quantitative study titled “A Correlational and Comparative study on Stoicism and resilience in Indian adults” aimed to study the relationship among Resilience and Stoicism and to find the differences based on gender in both the variables. A sample of 93 participants, 46 males and 47 females, partook in this research study, most of whom belonged to Bangalore. Convenience sampling technique was used to identify participants for the study, and the administration of the questionnaire was done through google forms, as it was the most convenient way to reach out to a large number of participants in a short period of time. Moreover, the current events of the COVID-19 pandemic and the on-going lockdown in Bangalore, restricted the physical administration of the test. The age of the participants who took part in the study was between 20- 40 years. The objectives of the study were to find if there was a connection, a relationship between Stoicism and Resilience, as resilience has been extensively stressed upon by the ancient Stoics and has been the premise of this school of thought. The other objective of this study was to find whether or not gender has an effect on the levels of Stoicism and Resilience in people.

Findings on the basis of hypotheses:

As mentioned earlier in the previous paragraph, Resilience has been included in the ancient teachings of Stoicism and has been an underlining factor in being called a Stoic. However, this study statistically proved that there is no significant relationship between Stoicism and Resilience. The strength of the correlation was very poor, the direction of the correlation was positive. But, due to the correlation being insignificant and poor, the direction of the correlation was disregarded.

In this study the first hypothesis which stated that “there is no relationship between stoicism and resilience” was approved. Although “this” study has rejected the hypothesis but the ROLs suggest otherwise. According to the previous literature, specifically one report, by *Tim LeBon on the SMRT-2020* (Stoic Mindfulness and Resilience Training-Year 2020), proved that the participants who took part in this 4-week resilience building program did however benefit from higher levels of resilience after finishing the course. This course was first initiated by Donald Robertson in the year 2012 and since then thousands of people around the world have joined this course, once a year, in hopes of better coping with their life stressors and becoming more resilient. In this course participants were provided with useful resources to practice Stoicism. For example, reading ancient scriptures which they can practice and then discuss the outcomes of their practices, with their facilitators and fellow participants to get more perspective.

This report stated that, at the start of SMRT the levels of Stoicism of the participants and their Resilience was checked using SABS (Stoic Attitude and Behavior Scale) and BRS (Brief Resilience Scale) respectively and the results showed that there was a correlation coefficient of (.53) between SABS and BRS. Which increased after 1 month of practicing Stoicism by 13%. “Resilience has been found to be positively associated with Stoicism and a month’s training in Stoicism significantly increases resilience”- *Tim LeBon*

Moreover, apart from improvement in the levels of resilience in participants, there were also significant increase in the well-being of participants over the course of Stoic Week. The life satisfaction of participants increased by 13%, Flourishing had an increase of 11%, Positive emotions increased by 11% and there was a 19% decrease in negative emotions of the participants over a month’s period- (*Report on Stoic Week 2020, Tim LeBon and Greg Lopez*).

In another similar study by *Alexander MacLellan and Nazanin Derakshan* on “*The Effects of Stoic Training and Adaptive Working Memory Training on Emotional Vulnerability in High Worriers*” they found out that Stoic training had positive effects on self-efficacy while helped reduce rumination that

is “the tendency to linger on sad, depressive or hopeless thoughts, and is one of the biggest predictors of future onset of depression”. In other words, this study demonstrated how Stoic training can enhance positive emotions by increasing self-efficacy and at the same time reduce negative emotions. Additionally, the training also had promising effects on the levels of resilience of the experimental group participants.

Now the most logical question to impose here is that, if previous research shows a positive relation between the two variables, then why did this study reject the theory that Stoicism and Resilience are not correlated. According to the researcher’s observation, there can be many reasons behind this underlying question. The participants might not have been debriefed properly before the administration of the test, or they might have not answered the items in the questionnaire truthfully, or maybe the wrong tools were chosen for the assessment purpose. But the most important reason perhaps can be that the Pandemic has had its impact on the Research and its overall administration and process. In their article (*Weiner, D.L., Balasubramaniam, V., Shah, S.I. et al. 2020*) talk about the drastic, dramatic and long-term effects of the Pandemic brought about the COVID-19 that has changed research to a great extent. Most academic, government and industry research have been curtailed. The administration of most research has been impacted by the pandemic, where modifications have taken place and the most of the research trials have changed to home administration in order to reduce the risks of getting affected.

Administration of most academic research that normally took place directly in a physical setting are now being modified to online administration using various Online Survey methods, one of them being google forms. In his journal “*Limitations of Online Surveys*”- *Chittaranjan Andrade (2020)*, describes the limitations of online survey methods. According to him, although online surveys are very convenient, easy to administer, less time consuming and given the present situations of the onset of the pandemic, a safe way to collect data, they almost always suffer from two methodological limitations: the results of the study cannot be generalized because the population cannot be described entirely and respondents with biases might get selected. Most of the participants that were chosen for the purpose of this study were convinced to take the test by continuous requests and were then urged to pass it on to other channels. There was no way of identifying, understanding, and describing the population that could have accessed and responded to the online survey, and to whom the results of the survey could have been generalized. These and other similar limitations have made it quite clear that more research needs to be promoted in this area, in order to come to an accurate conclusion.

The second null hypothesis stated that there is no significant difference between males and females with regard to Stoicism which was accepted. This statistically proved that gender does not have an effect on the levels of Stoicism in both males and females. This has been supported by study done by (*Pathak and Weiten, 2017*) where they stated that the notion of women being emotional and men being Stoics have strongly been overblown and that in reality Stoicism is not gender-biased. Although men endorse more Stoic attitudes than women, which was evident in the Means of this study as well, there is not a significant difference between the stoic ideologies of men and women.

The third and final hypothesis which stated there is no significant difference between males and females with respect to Resilience was also accepted. This again demonstrated statistically that gender has no effect on the levels of Resilience in a person. Although, men showed higher mean values in Resilience, the difference was not substantial, and thus could easily be discarded.

VI. CONCLUSION AND SUMMARY

The present chapter summarizes the study and presents the conclusions drawn from it. This study aimed to observe the relationship among Stoicism and Resilience and find the gender difference in both these variables. 93 Indian adults, ages between 20 to 40, were administered the test via the

google forms. Out of the 93, 46 were male and 47 were female participants. Due to the lack of sufficient literature in Indian context related to these variables, null hypotheses were formulated and tested. The null hypotheses are as follows:

1. There is no significant relationship between Stoicism and Resilience.
2. There is no significant difference between males and females with respect to Stoicism.
3. There is no significant difference between males and females with respect to Resilience.

In this study, the data was analyzed using SPSS version 20. The correlation between Stoicism and Resilience was tested with the help of Pearson Product Moment Correlation, while the gender difference in Stoicism was calculated using Independent Sample t-Test. The gender difference in Resilience was assessed with Mann-Whitney U, as the sample was not normally distributed.

The results of the tests statistically approved all the null hypotheses and proved that there is in fact no relationship between Stoicism and Resilience and that gender has no effect on levels of Resilience and Stoicism in Indian adults.

Although the literature review for the first hypothesis specially, presented very different theories and results, claiming that these two constructs are in fact correlated and have positive relationship among them. There could be many reasons why this specific study failed to produce similar results. One of the reasons could be the impact of the Pandemic on research and its administration. Due to the ongoing Lockdown for the prevention of the spread of the virus, the test administration was done using google forms, which has its own drawbacks in terms of producing methodologically accurate results.

5.1. SUGGESTIONS FOR FUTURE RESEARCH:

In the future, stoicism and resilience could be assessed with the help of other assessment tools, consisting of higher reliability and validity factors. The researcher believes that if the participants are assessed with the help of paper-pencil questionnaires rather than on an online platform, such as google forms; in a physical setting, the chances of getting more accurate responses from the participants would be more, as the administrator will be able to debrief the participants more efficiently. Additionally, any queries from the participant's part can be easily resolved by the administrator of the test. Lastly, the chances of the participants truthfully answering each item of the questionnaire increases when the test is administered directly.

5.2. IMPLICATIONS OF THE RESEARCH:

Although this study might not have produced positive results, it does not mean that future research in this area has been halted. As mentioned earlier, there can be several reasons behind the negative results of this study and according to the researcher's observations, once those factors are controlled, there are better chances of achieving methodologically accurate results. Nevertheless, Stoicism, as cited in various literature, has a positive impact on the Resilience of an individual and researchers are required to start dissecting this otherwise novel domain of research. Because encouraging results in this field would mean bringing about a positive change in the individual's level of resilience and thus progressing towards an overall resilient community.

5.3. LIMITATIONS:

- The sample was quite small for the purpose of this quantitative research study.
- The participants were assessed with the help of google forms, thus restraining rapport formation between the participant's and the researcher.

- Due to the online assessment of the questionnaire not many participants were willing to fill out the form. This drawback could've easily been managed if the assessment had taken place directly, in a physical environment.
- Moreover, because the assessment took place online, the honesty and transparency of the participants with respect to answering the questions could not be evaluated.

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APPENDIX

Scales that were used to assess Stoicism and Resilience

1. Stoicism:

Please read the following statements carefully and choose the response that is most appropriate to you. The responses range from 0 (disagree) to 4 (agree). There is no right and wrong answer. (Try to be as honest as you can while giving your response, in order to ensure accuracy of results)

Pathak-Wieten Stoic Ideology Scale

	Item	Domain	0	1	2	3	4
1.	I expect myself to hide my aches and pains from others.	Stoic Endurance					
2.	I don't believe in talking about my personal problems.	Stoic Taciturnity					
3.	I expect myself to manage my physical discomfort without complaining.	Stoic Endurance					
4.	I believe I should experience strong emotions.	Stoic Serenity					
5.	When the time for my death comes, I believe I should accept it without fear.	Stoic Death Indifference					
6.	I expect myself to hide my strong emotions from others.	Stoic Taciturnity					
7.	I would prefer to be unemotional.	Stoic Serenity					
8.	I expect myself to manage my own problems without help from anyone.	Stoic Taciturnity					
9.	I expect myself to manage my own problems without help from anyone.	Stoic Endurance					
10.	I would be very upset if I knew my death was coming soon.	Stoic Death Indifference					
11.	I expect myself to avoid feeling intense emotions.	Stoic Serenity					
12.	I would not allow myself to be bothered by the fear of death.	Stoic Death Indifference					

2. Resilience:

Read the following statements carefully. Under each statement, you will find seven numbers, ranging from "1" (Strongly Disagree) to "7" (Strongly Agree). Choose the option which best indicates your feelings about that statement. (Try to be as honest as you can while giving your response, in order to ensure accuracy of results)

RS-14 (Resilience Scale-Shortened Version)

	Items	1	2	3	4	5	6	7
1.	I usually manage one way or another							
2.	I feel proud that I have accomplished things in life.							
3.	I usually take things in stride. (To cope with something unfortunate without much effort; to accept or manage difficulties well)							
4.	I am friends with myself.							
5.	I feel that I can handle many things at a time.							
6.	I am determined.							
7.	I can get through difficult times because I have experienced difficulties before.							
8.	I have self-discipline.							
9.	I keep interested in things.							
10.	I can usually find something to laugh about.							
11.	My belief in myself gets me through hard times.							
12.	In an emergency, I am someone people generally can rely on.							
13.	My life has meaning.							
14.	When I am in a difficult situation, I can usually find my way out of it.							

