

A Correlational Study on Stress, Resilience and Aggression Among College Students in Kolkata

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ABSTRACT

The objective of the present study was to examine the relationship between stress, resilience, and aggression among college students in Kolkata. The sample consisted of 98 college students (aged 18-25) from various government and private colleges in Kolkata. Purposive sampling was used to recruit the participants. Buss-Perry Aggression Questionnaire, Brief Resilience Scale (BRS) and Perceived Stress Scale (PSS) was used to collect data. The findings reveal a significant negative correlation between stress and resilience which indicates students with poorer resilience will experience higher level of stress. The results also showed a positive relationship between stress and aggression, indicating that students who are under a lot of stress will also be aggressive in nature.

Keywords: *Buss-Perry Aggression Questionnaire, Brief Resilience Scale, Perceived Stress Scale, College students*

Stress is described as a sense of being overwhelmed, worry, destruction, press, exhaustion, and lethargy (American Psychiatric Association, 2014). Selye originally suggested that stress is simply the rate of wear and tear in the body (Behere, S. P., Yadav, R., & Behere, P. B., 2011).

Types of Stress: Many professionals suggest that there is a difference between what we perceive as positive stress eustress, and distress, which refers to negative stress. In daily life, we often use the term “stress” to describe negative situations. This leads many people to believe that all stress is bad for them, which is not true. Positive stress has the following characteristics: motivates, focuses energy, is short-term, is perceived as within our coping abilities, feels exciting and improves performance. In contrast, negative stress has the following characteristics: causes anxiety or concern, can be short or long-term, is perceived as outside of our coping abilities, feels unpleasant, decreases performance, and can lead to mental and physical problems.

Impact of Stress on Students: Students are experiencing high levels of stress in many areas of their life. The impact of stress on students can be looked at from various angles.

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According to Centre (2010); Stress affects students academically, socially, physically, and emotionally (Rana, A., Gulati, R., & Wadhwa, V., 2019).

Research suggested that stress can be a considerable factor that affect aggression and resilience among students. A study on Chinese undergraduate nursing students found that stress was negatively correlated with resilience (Smith, G. D., & Yang, F., 2017).

Resilience

According to the definition from the American Psychological Association (APA), resilience refers to both the process and the outcome of successfully adapting to difficult or challenging life experiences. There are three fundamental characteristics that seems to set resilient people and companies apart from others.

The ability to accept and confront reality is the first quality. We train ourselves to survive before we ever need to by taking a critical look at reality and preparing ourselves to act in ways that allow us to endure and survive hardships. Second, resilient individuals and groups can derive significance from some parts of life. Value systems at resilient firms vary very little over the long term and are employed as scaffolding in difficult times, making them equally as vital as meaning. The capacity to improvise is the third component of resilience. Within an arena of personal capabilities or company rules, the ability to solve problems without the usual or obvious tools is a great strength (Coutu, D. L., 2002).

Types of Resilience: 1) Physical Resilience: This concept describes how the body adapts to change and heals after being subjected to physical demands, ailments, and injuries. 2) Mental Resilience: This term describes the capacity of an individual to adjust to change and uncertainty. People with this kind of resilience are adaptable and composed under pressure. They rely on their mental fortitude to overcome obstacles, continue their path, and maintain optimism. 3) Emotional Resilience: This refers to the capacity to control one's emotions under pressure. People who possess this kind of resilience are also better able to remain upbeat under difficult circumstances. 4) Social Resilience: This concept refers to a group's capacity to bounce back from challenging circumstances. It entails interacting with others and cooperating to find solutions to issues that have an impact on individuals both personally and collectively.

Some research suggested that stress can also contribute to aggression among young people. A study on urban youth found a significant relationship between stress and aggression behaviors (Centeio, E. E., Whalen, L., Kulik, N., Thomas, E., & McCaughy, N., 2015).

Aggression

According to American Psychological Association, aggression is a behavior aimed at harming others physically or psychologically. In social psychology, aggression is most defined as a behavior that is intended to harm another person who is motivated to avoid that harm (Bushman & Huesmann, 2010; DeWall, Anderson, & Bushman, 2012).

Types of Aggression: 1) Impulsive Aggression: This type of aggression is caused by anger, triggers the acute threat response system in the brain, involving the amygdala, hypothalamus, and periaqueductal gray (Blair, R. J., 2016). This form of aggression is not planned and often takes place in the heat of the moment. It is characterized by strong emotions. It is also known as affective or reactive aggression.

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2) Instrumental Aggression: This type of aggression is often carefully planned and usually exists to an end. This form of aggression is characterized by the behavior that are intentionally done to achieve a larger goal.

There are many different elements that are involved in aggression, including someone's biological, environmental, and psychological factors:

- 1. Biological Factors:** Aggression may be influenced by hormonal and genetic variables. Aggression may be associated with imbalances in a few hormones, including cortisol and testosterone, as well as neurotransmitters, including serotonin and dopamine. Genetics is just one of the many causes of these abnormalities. Aggression may also be influenced by brain shape. Aggressive behaviour is more common in those with structural amygdala abnormalities than in their counterparts. Aggressive behaviour may also be influenced by alterations in other parts of the brain.
- 2. Environmental Factors:** Whether people display aggressive behaviour may depend on their upbringing. Children who encounter hostility as they grow up may be more likely to think that violence and hostility are acceptable social behaviours. Trauma suffered as a youngster can also influence an adult's violent behaviour. The well-known Bobo doll experiment by psychologist Albert Bandura proved that observational learning can potentially contribute to the emergence of violence. Children in this study were more likely to emulate an adult model's hostile behaviour towards a Bobo doll after watching a video clip of the behaviour.
- 3. Psychological Factors:** Aggressive behaviour can be linked to several mental health problems, including: Attention-deficit/hyperactivity disorder, Bipolar disorder, Borderline personality disorder, Narcissism, Post-traumatic stress disorder etc. Other factors that can affect aggression include epilepsy, dementia, psychosis, substance use disorder, and abnormalities or lesions to the brain.

The present study aims to investigate the associations between stress, aggression, and resilience among college students in Kolkata.

METHODOLOGY

Objective

- To determine the relationship between Stress & Resilience among college students in Kolkata.
- To determine the relationship between Stress & Aggression among college students in Kolkata.

Hypothesis

1. There is no significant relationship between Stress & Resilience among college students in Kolkata.
2. There is no significant relationship between Stress & Aggression among college students in Kolkata.

Samples

A group of 98 college students who are 18-25 years old and lives in Kolkata were selected as a sample for this study.

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Inclusion Criteria

- Individuals between the age group of 18-25 years were included.
- Individuals who were citizens of India and lives in Kolkata were included.
- Both males and females were included.

Exclusion Criteria

- Individuals diagnosed with serious physical health issues were excluded.
- Individuals with serious mental health issues or remarkable psychological disorder and under medication were excluded.

Sampling Techniques

In this research study, non-probability sampling was used, thus purposive sampling has been followed.

Instruments

- **Buss Perry Aggression Questionnaire** was designed by Arnold H. Buss and Mark Perry, professors from the University of Texas at Austin in a 1992 article for the Journal of Personality and Social Psychology. This questionnaire consists of 29-item, in which participants rank certain statements along a 5-point continuum from "extremely uncharacteristic of me" to "extremely characteristic of me". The scores are normalized on a scale of 0 to 1, with 1 being the highest level of aggression. It measures four factors: physical aggression, verbal aggression, anger, and hostility. The test-retest reliability of this questionnaire was 0.78 (Buss, A. H., & Perry, M., 1992).
- **Brief Resilience Scale** was developed by Smith et al. in 2008 and consists of six items, three positively worded and 3 negatively worded, that the individual rate on a scale. It has a 5-point Likert scale, ranging from 1 (strongly disagree) to 5 (strongly agree). Scores range from range from 6-30. A degree of internal consistency was observed for each of the 6 items with Cronbach's alpha 0.83. and interclass coefficient 0.69 (Smith, B. W., Dalen, J., Wiggins, K., Tooley, E., Christopher, P., & Bernard, J., 2008).
- **The Perceived Stress Scale-10 (PSS-10)** is originally developed in 1983 by Cohen et al to assess the degree of stress people felt in unpredictable, out of control, and overloaded situations. PSS consists of 10 questions on a 5-point Likert Scale. The scale also includes a few direct queries about current levels of experienced stress. The questions in the PSS ask about feelings and thoughts during the last month. Scores can range from 0-40 with higher scores indicating higher perceived stress. Pss-10 demonstrated an adequate internal consistency reliability of 0.78. The concurrent validity by having correlations ranging from 0.52 to 0.76 (Cohen, Sheldon, Tom Kamarck, and Robin Mermelstein, 1983).

Procedure

Samples were selected from young adults' group (18-25 years old) those who are college students. A data sheet was prepared via google form, by using the questionnaires of aggression, resilience, and stress and a form on demographic details and informed consent. The individuals took an average time of 20-30 minutes. After the responses were collected from both males and females, the scoring was done for each item according to the scoring standards. A Spearman's Rank was used to determine the significant relationship between the variables. Finally, the results tables and discussion were mentioned.

RESULTS

Table No. 1: Mean and SD values of Aggression, Resilience and Stress

Variables	Mean	SD
Aggression	84.53	16.83
Resilience	3.01	0.71
Stress	20.98	7.98

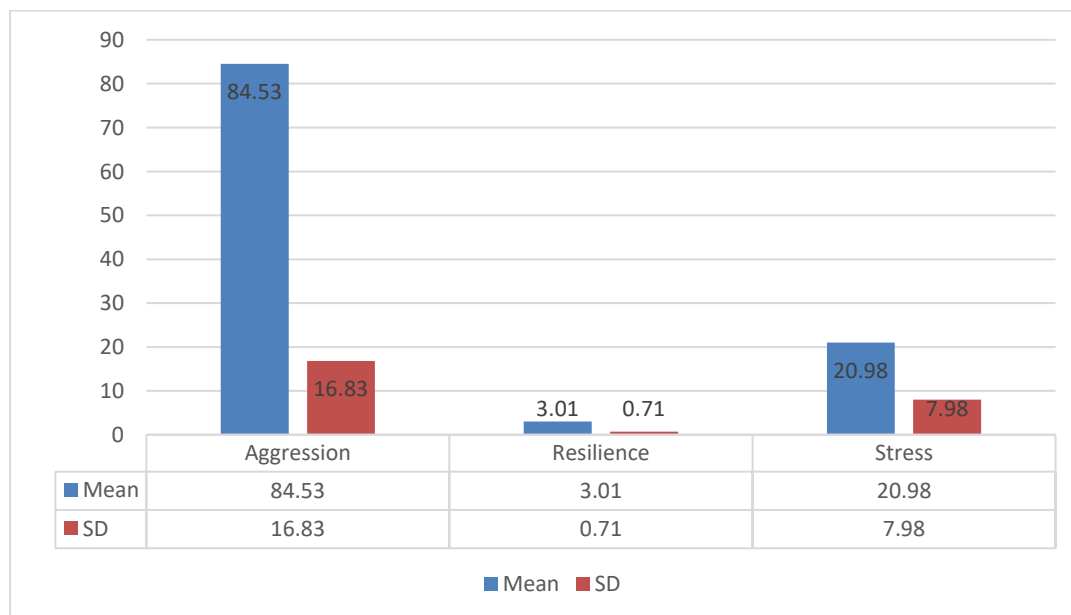


Figure 1 Graphical representation of Mean and SD values of Aggression, Resilience, and Stress

From the above result it has been found that the mean score for aggression, resilience and stress was 84.53, 3.01 and 20.98. And the SD score for aggression, resilience and stress was 16.83, 0.71 and 7.98.

Table No. 2: Correlations between Stress and Resilience, Aggression

Variables	Resilience	Aggression
Stress	-.657**	.197

**Significant at 0.01 level

From Table-2 it can be seen that, there is a significant relationship between Stress and Resilience. The correlation is significant at 0.01 level, but there is a no significant relationship between Stress and Aggression.

DISCUSSION

The objective of the present study was to determine the relationship between aggression, resilience and stress among college students aged 18-25 years, in Kolkata. Table 1 shows the Mean value of aggression, resilience and stress which is 84.53, 3.01, and 20.98. Table 1 also shows that the SD value of aggression is 16.83. Therefore, overall, the data is highly inconsistent, which means the raw data are widely spread all over the distribution. Moreover, the SD value of stress is 7.98 which is also highly inconsistent and indicates that overall, the raw data are widely spread throughout the distribution. On the other hand, the SD value of resilience is .71 and generally indicates highly consistent data. This implies that, the raw data are closely clustered around the distribution. Table 2 shows that, there is a

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significant relationship between stress and resilience at 0.01 level. Hence, the null hypothesis is rejected. Results indicated a negative correlation between these two variables (-.657). This acknowledges the fact that, students' potential for resilience will decrease as their degree of stress rises. Thus, students with high level of stress will have low resilience. This table also reveals that, there is a positive direction between stress and aggression, but the amount of relationship is not significant between these two variables, which can be attributed to several limitations. Hence, the null hypothesis is accepted. This indicates that, students' aggression will inflated as their degree of stress does. Therefore, students with high level of aggression will experience high level of stress.

CONCLUSION

Thus, from the above result it can be concluded that: The first hypothesis, i.e., there is no significant relationship between Stress & Resilience among college students in Kolkata, has been rejected. The second hypothesis, i.e., There is no significant relationship between Stress & Aggression among college students in Kolkata, has been accepted.

Limitations

This study may have a number of limitations. Such as:

- Purposive sampling produced inconsistent results that needed to be corrected.
- Participants with major mental illnesses were not included in the current study. Therefore, it was necessary to assess any physical or mental health issues using screening tools such the General Health Questionnaire (GHQ). Due to a lack of time, this could not be used. Even though the person has not mentioned any psychological disorders, they may still have any disorders.
- Because of the time limit, only a small number of samples (N=98) were used in this investigation.
- The data has given inconsistent outcomes since the individuals may have been exhausted while providing responses.
- There has been usage of less potent non-parametric statistics.

Implications:

- This study makes the pathway for further research, as in the present case, the sample size was very small.
- As the relationship between stress and resilience is established, it will help us for planning and for giving life skill training to the individuals, so that, people having high resilience, can deal with their stress in a better way.
- As this present study established the positive relationship between stress and aggression, thus, better stress management programme can help a person to deal with the stress and aggressive behavior as well.
- As there were no previous research, done on this particular population, utilizing these particular variables, thus, this information is now established statistically in this population by this present study.

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Conflict of Interest

The author(s) declared no conflict of interest.

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