

Exploring the Effect of Stress on Aggression among Young College Students

Diya Malaviya

Undergraduate Student, St. Xavier's College, Ahmedabad

Under the guidance of Dr. Arefa Mansuri

Associate Professor, St. Xavier's College & M.Phil, Ph.D Guide, Gujarat University

Abstract

Growing up and stepping into adulthood often comes with increasing amount of pressure. Academic expectations, shift towards dependent living to independent living can highly impact mental well-being. Two common experiences in this phase faced by students are stress and aggression which are closely related to emotions. The present research aims to explore the relationship between stress and aggression in young college adults, with a special focus on how gender and living arrangements might influence these experiences. A total of 160 samples were selected which includes residential males (40), residential females (40), male paying guests (PGs)(40), and female paying guest (PGs)(40). Age group on which it was administered was between 18-22. Buss Perry Aggression Questionnaire (BPAQ) by Arnold H.Buss and Mark Perry (1990's) consist of 29 items and Perceived Stress Scale (PPS-10) by Cohen and William Williamson (1988) consist of 10 items was being administered . The data was collected and analysed the relation between stress and aggression among gender and living arrangements of students. It states that there is a positive corelation between stress and aggression, there is no such significant difference between the stress and aggression based on gender and there is a significant difference based on students living in residence and students living in pg. t-test and Pearson correlation was used. The study aims to give valuable insights that could help educational institutions, counsellors, and families, to support young college students effectively.

Key words: Aggression, Stress, gender difference, young college students, Type of living arrangement- Residential and PG.

INTRODUCTION

Aggression is generally defined as any behaviour which is intended to harm oneself or others. Social psychologists explain aggression as an action that is planned to harm those people who do not want to be harmed (Baron & Richardson 1994). Aggression is not just only an emotional state but it also has many behavioural outcomes which can be verbal, physical or even passive in nature. Physical aggression includes hitting, biting, punching, scratching, or in worst cases it can lead to killing and murder. Verbal aggression includes shouting, screaming, abusing, name-calling, bullying, insulting, etc. Passive aggression is an indirect way of expressing negative emotions such as anger, resentment, disapproval or sarcastic replies. Apart from this there is Hostile aggression which is impulsive with the primary goal of hurting someone (Bar fight where someone lashes out in outrage). Whereas Relational aggression includes damaging someone's social relationships or reputation. Hormones like Testosterone activate the brain area which causes aggression and some brain structures like amygdala play a major role in triggering aggressive responses. But apart from this, there are many social and environmental factors that lead to aggression from which staying far away from home is one of the reasons which causes aggression.

Stress is a complex and heterogeneous phenomenon that can significantly influence aggressive behaviour. Stress arises when people feel that the demands placed upon them exceed their ability to cope up. These demands lead to heavy pressure which makes one irritated and aggression is reflected as a response. Stress, as a physiological and psychological response to challenging or threatening situations, has been implicated in various forms of aggression. Stress can activate the body's neuroendocrine system, which triggers a cascade of events that wind up in the release of stress hormones such as cortisol. This hormone response affects many physiological systems, which mainly includes the brain, and can profoundly influence behaviour. Neuromodulator pathways, such as the hypothalamic-pituitary-adrenal (HPA) axis, serotonergic system, and androgen system, play important roles in regulating stress responses and regulating aggression. These pathways involve complex networks of neurotransmitters, receptors and various molecules that adapt the physiological and behavioural responses to stress. Dysregulation or alteration in these pathways can have extreme effects on an individual's tendency for aggressive behaviour. Mostly students who are studying and living far from their place feel more stressed as there is not only academic pressure but they also deal with financial issues, unhygienic food, distance from family, etc. Sometimes because of these reasons an individual becomes short-tempered and shows more aggressive behaviour than usual. Even students living with their parents do show aggressive behaviour when they feel

that they were not valued enough in their own house, absence of one of the parents, financial conditions leading to stress and ultimately short temperedness and many times child learns it from the surrounding environment. Peer competition, career uncertainty and adjustment problems are stressors which may lead to emotional imbalance among students, which often results in aggressive behaviour such as irritability, verbal outbursts, physical fights or even crying. Thus, stress and aggression among college students are strongly connected as the student first time steps out in an open environment where he may have anxiety too and don't know how to deal with situations. If stress is left unmanaged, it can hinder relationships, wellbeing, academic performance, and mental health.

Research has shown that adolescents and young adults are often more prone to employ maladaptive strategies than adaptive strategies when faced with stressors. Stuthers, Peery and Menec (2000) found that stress was negatively related to academic performance among school children. There is a significant relationship between stress, anger, fighting and bullying behaviours in urban PE, possibly indicating a need for renewed focus on anti-aggressive approaches and positive stress response techniques (2015, Ceteio E, et al.). APA (2004) have said that stress and aggression reinforce each other at the biological level, creating a vicious cycle. Research also indicated that students' aggression will be inflated as their degree of stress does. Therefore, students with high level of aggression will experience high level of stress (Mandal & Roy 2024).

Thus, the aim of the present study is to see the effect of stress on aggression among young college students based on their living arrangements that is Residential or Paying guest (PG). It focuses on whether stress causes aggression more on males or females and does it differ gender-wise and does it have more effect on residential students or PG students. It is a gender based and type of living arrangement based study where independent variables are genders (male and female) and type of living arrangements (with family and Paying Guest) and the dependent variables are aggression and stress.

METHODOLOGY

Objective

- To study the difference between male and female (gender) college students with regards to their aggression.
- To study the difference between Paying Guest and living with family (residential) college students with regards to their aggression.

- To study the difference between male and female (gender) college students with regards to their stress.
- To study the difference between Paying guest and living with family (residential) college students with regards to their stress.
- To study the correlation between aggression and stress among college students.

Hypotheses

- There will be no significant difference between male and female (gender) college students with regards to their aggression.
- There will be no significant difference between Paying Guest and living with family (residential) college students with regards to their aggression.
- There will be no significant difference between male and female (gender) college students with regards to their stress.
- There will be no significant difference between Paying guest and living with family (residential) college students with regards to their stress.
- There will be no significant correlation between Aggression and Stress among students.

Sample

The total number of samples for the present study constituted of 160 participants out of which 80 were males and 80 were females. The sample were divided based on gender (male and female) and living arrangement (residential and paying guest). The gender wise participants consist of 80 males and 80 females and the living arrangement (residential and paying guest) participants consists of 40 females of residential as well as 40 females of PG and 40 males of residential as well as 40 males of PG. For the data collection, Online survey method was used and only college going students of age 18-22 were approached. Consents were taken in typed form only. The data was collected from Ahmedabad city only. Males and females who are living with family or in PG and were of age 18-22 were included and only undergraduate students were approached, rest of the students not matching with these criteria were excluded.

Procedure

After getting permission and ethical clearance from the respective college authorities in Ahmedabad city, respective participants for data collection were approached. The google form was used and the purpose of the study was explained in it in detail. First section consists of consent form, second section consists of demographic details and then third and fourth section consists of BPAQ scale and Perceived Stress Scale. Necessary instructions and guidelines were provided in typed form for properly filling the scale. All the instructions of how to rate the

questions were given in it. Following the completion of the scale, participants were thanked for their participation and cooperation and for giving their valuable time.

Measure

The Buss Perry Aggression Questionnaire (BPAQ) and Perceived Stress Scale (PSS-10) were used as measurement tool to assess stress and aggression among participants. The Buss Perry Aggression Questionnaire (BPAQ) is a self- reporting inventory. It was developed by Arnold H. Buss and Mark Perry (1990s) as a means to measure aggression in adults. The BPAQ divides aggression into four primary dimensions: physical aggression, verbal aggression, anger and hostility. The instrument consists of 29 items, and respondents rate their agreement with each statement on a likert scale. It is a 5-item scale and scoring is done as 1-5 where 1 depicts extremely uncharacteristic to 5 as extremely characteristic. For question 7 and 18, reverse scoring is done that is 5-1. Highest possible score of BPAQ is 140.

The Perceived Stress Scale is a classic stress assessment instrument. It was developed by Cohen Kamarch and Mermelstein (1983). It is a self-reported questionnaire which was designed to measure the degree to which situations in one's life are considered as stressful. For the scoring, it is 0-4 from 0 as never to 4 as very often. Reversed scoring is to be done for questions 4, 5, 7 & 8 as 4 to 0. Individual score on PSS can range from 0 to 40 in which score can be interpreted as 0-13 as low stress, 14-26 as moderate stress and 27-40 as high stress. For the statistical analysis t-test and pearson's correlation coefficient method is used.

RESULTS

Table 1: Shows the mean, SD, t-value, table value and level of significant of Aggression of males and females

	N	Mean	SD	"t" value	Table value	Level of significant
Male	80	87.59	12.76	0.04	1.98	NS
Female	80	87.51	13.71			

In table no. 1, almost same average aggression levels between genders that is male and females were shown in which the mean score of males is 87.59 whereas the mean score of females is 87.51. Males SD is 12.76 and females SD is 13.71. The obtained t-value 0.04 was much lower than the table value 1.98 at the 0.05 significance level, showing that gender does not play a

significant role in determining aggression among participants in this study. Thus, Hypothesis is not rejected and it can be said that there is no significant difference found in this study.

Table 2: Shows the mean, SD, t-value, table value and level of significant of Aggression of type of living arrangement.

	N	Mean	SD	"t" value	Table Value	Level of significant
Paying Guest	80	89.25	12.27	1.64	1.98	NS
Living with Family	80	85.51	13.94			

In table no. 2, here the participants living as paying guest reported slightly higher aggression where their mean score is 89.25 and SD is 12.27. although the mean score of students living with family were 85.51 and SD=13.94, no significant difference was found as the obtained t-value 1.64 again fell below the table value 1.98 making it non-significant. Thus, although paying guests showed marginally higher aggression than participations living with family, the difference was not statistically significant. Hence, there was no significant difference between the mean score of aggression among males and females residing in paying guest or with their family. Thus, Hypothesis is not rejected.

Table 3: Shows the mean score, SD, t-value, table value and level of significant of stress of males and females

	N	Mean	SD	"t" value	Table value	Level of Significant
Males	80	18.94	4.36	2.17	1.98	0.05 Level
Females	80	20.71	5.88			

In table no. 3, males have a mean score of 18.94 and SD=4.36 while females reported a slightly higher mean score of 20.71 and SD=5.88 as compare to males. The obtained t-value is 2.17, which is greater than the table value which is 1.98 at the 0.05 level of significance. Thus, the difference between males and females is statistically significant at the 0.05 level. Hence,

females showed significantly higher stress than males in this study. Thus, Hypothesis is rejected.

Table 4: shows the mean score, SD, t-value, table value and level of significant of stress of type of living arrangement

	N	Mean	SD	"t" value	Table value	Level of Significant
Paying Guest	80	20.41	5.47	1.42	1.98	NS
Living with Family	80	19.24	4.96			

In table no. 4, Participants living as paying guests had a mean stress score of 20.14, while those living with family had a mean score of 19.24 which shows that paying guest had slightly higher stress level. The SD of paying guest is 5.47 whereas the SD of participants living with family is 4.96 which shows somewhat similar variability. The obtained t-value is 1.42, which is lower than the table value of 1.98 at the 0.05 level. Thus, the difference between paying guests and those living with family is not statistically significant. Hence, type of living arrangement does not significantly affect stress levels of males and females in this study. Thus, Hypothesis is not rejected.

Table 5; mean, t-value, table value and level of significant of correlation between aggression and stress among participants

	N	Mean	"r" value	Table Value	Level of Significant
Aggression	160	87.55	0.2442	0.1534	0.05 level
Stress	160	19.825			

In table no.5, the average aggression score of total participants is 87.55, and the average stress score of total all the participants is 19.825. The correlation value $r = 0.2442$ indicates a positive relationship between aggression and stress which means that when the level of stress increases, the level of aggression also increases. The obtained value 0.2442 is greater than the table value 0.1534 at the 0.05 level of significance. Therefore, the result is statistically significant and there is positive correlation between stress and aggression in this study. Thus, Hypothesis is rejected.

DISCUSSION

The findings of this study shows that there is no significant difference of aggression between males and females. Both groups has equal mean score which suggests that gender does not play much important role in determining aggression level. Where as when comparison was done between paying guest and those living with family showed no significance, yet students living in PGs did showed slightly higher aggression as compared to those who were living with their family. But in stress, females has showed significantly higher stress as compare to males which depicts that gender does influence the stress level. In contrast, no significant difference is seen between stress kevel of students living in PGs and students living with their family. Another major finding of this study was, there is significant positive correlation between aggression and stress, which means that when stress increases, aggression also increases. This result is consistent with the Frustration-Aggression Hypothesis and Stress-Arousal theories, which says that when stress increases, irritability and aggressive response increases. Thus, stress may serve as a contributing factor in aggression. Hence, it can be said that stress does have significant impact on gender but not in aggression, while type of living arrangement does not have significant effect on either stress or aggression. The positive correlation between stress and aggression underscores the need to address. Deep breathing, mindfulness practices, muscle relaxation techniques, meditation and yoga should be practice to prevent it. Educational Institutions can provide counselling services where students can freely discuss their emotional difficulties, adjustment problems and stressors.

CONCLUSION

Thus, present study suggests that educational institutions and even family should focus on arising issues of young adults, helping them to manage their emotions and to cope with stressors effectively. Although, no significant difference found yet many individual scores have shown higher stress and higher aggression which needs to be addressed and work on it. Moreover, Educational institutions should hire a counsellor with whom students can share what they are feeling and solution for their problems can be found.

LIMITATION

Although the research has done significant contribution in understanding effects of stress on aggression among young college students, it does have certain limitations. Firstly, the research only included specific age group. Secondly, the sample size was too small. Thirdly, apart from stress, there are many factors like unhygienic food, surrounding environment, genetics, etc, which influences individual's behaviour and makes person aggressive which were not focused here, as the central theme was stress. Lastly, online survey was done for data collection which

may have deprived those students who doesn't have internet access or don't know how to use it. Also people who were belonging to other gender (apart from male and female) were excluded.

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