

## Perceived Stress of College Students: A Study on Rajshahi District in Bangladesh

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### ABSTRACT

The study was aimed to investigate the effect of gender, institution type and academic group on perceived stress among the college students of Rajshahi district of Bangladesh. There were 120 participants (60 male students and 60 female students) who were selected conveniently from two government and two non-government colleges of Rajshahi district. The four colleges were selected randomly. Bangla version (Keya, 2006) of Perceived Stress Questionnaire was used to measure perceived stress of the respondents. The collected data were analyzed by applying t-test, and one-way ANOVA through IBM SPSS version 25. The result revealed that no significant difference was found between male students and female students in terms of perceived stress score ( $t= 1.416, p>0.05$ ). The result showed that there is no significant effect of institution type on perceived stress of the respondents ( $t=1.815, p>0.05$ ). The finding also proven that no significant difference was found among the respondent academic group (Science, Humanities and commerce) in terms of perceived stress ( $F=0.772, p>0.05$ ).

**Keywords:** *Perceived Stress, Gender, Institution Type, Academic Group*

Stress is characterized as a risk that puts the health of us at risk. When the ability of an organism for adaptation does not function in accordance environmental demands, physiological and mental illnesses arise (Cohen et al., 2016). Stress can be a beneficial and proactive reaction to a menace by directing a person's energy to the factors that are stressful (Khan, et al., 2015). The leading mental wellness issues among college pupils are depression, psychological stress, and anxiousness (Marthoenis et al., 2018). Perceived stress is to one's own sentiments or concepts concerning the level of stress one feels at a specific moment or throughout a particular duration (Phillips 2013). Perceived stress encompasses perceptions about one's existence indeterminacy and inevitability, how frequently one needs to cope with annoying issues the extent to which alter is happening in one's personal circumstances, and trustworthiness regarding one's capacity to tackle with challenges or difficulties. It does not assess the kinds or the occurrence of troublesome situations that have took place in a particular individual's life, instead of examines the way an individual's view overall stressfulness of their present circumstances and the ability to handle with such stress. People may face almost the same undesirable life events, but they may judge the consequence or severity differently depending on their character traits, ways of dealing, and social help.

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College pupils view stress is multifaceted and have many different root causes (Reddy et al., 2018; Karyotaki et al., 2020). Circumstances those are distressing while students have a substantial detrimental impact on their academic and social interaction (Yeshaw, Y. & Mossie., 2017; Jovanovic et al., 2017). Numerous researchers examined the stress experience by students and the demographic factors that are contribute to it. The research carried out on perceived stress and source of stress among undergraduate medical students and the research suggested that majority of students were stressed 80%, only 6% were severely stressed (Nivetha et al., 2018). Another study suggested that negative correlation existed between spiritual well-being and participant's perceived stress and depression (Lee, 2014). Alterations in perceived stress and to a reduced degree, sleep problems continuously appear to play a role in cognitive deficits (Eskildsen et al., 2017). Bhat, et al., (2018) came to the conclusion that mental stress is very typical among college learners, specifically among art and engineering students alongside those who are living with family member. It came to light that empirical research on the impact of gender on stress was contradictory (Azila-Gbettor, et al., 2015). Notwithstanding the fact that many research have revealed increase levels of stress among students. However as reported by another study, university students have a moderate level of depression, stress and anxiety (Bataineh, 2013).

### LITERATURE REVIEW

In a study done by Azila-Gbettor, et al., (2015) in Ghana, and they found that male students were more stressed than female students. A study carried out by Graves et al., (2021) in order to see the effect of gender on perceived stress and the research findings confirmed that females, on average, mentioned increasing levels of stress than their male counterparts. Costa (2021) ran a study in Southern Italy on perceived stress. Their findings indicated that females are more stressed than males. However, A study conducted by Bhosale (2014) to see the gender difference in terms of academic stress and the study result suggested that there is not a significant difference exists male and female to experience stress. Another study showed that the usage of the entire PSS-10 values with UK university students and demonstrated that gender bias has no significant effect on the scale (Denovan et al., 2019). A study was conducted by Alshagga et al., (2015) in Malaysian public and private universities which purpose was to assess perceived stress level among the pupils. The research results suggested that perceived stress affected males and females similarly. Eva, et al., (2015) conducted a research on stress among medical students and the study suggested that stress is noticeable among students of both private and public medical colleges. And the finding claimed that Students in public medical colleges encounter more difficulties than those of private medical colleges. Muhammad N. et al., (2021) conducted a study among the students of public and private universities in Bangladesh and they found that public university students felt more stress than private university students.

#### *Significance of the study*

Students are exclusive group members who are departing behind the most crucial phase of their lives, during which they confront many challenging situations (Buchanan JL., 2012). Stress is the most difficult concerns that influence the life of college pupils; its belongings could be displayed in learner's academic and psychological well-being. Many research confirmed that a stressor encountered in college are able to anticipate mental health diagnosis (Pedrelli., 2015; Liu., et al., 2019). That's why every college needs to evaluate its students stress so as to provide them with the appropriate psychological wellness care, the proficient techniques to adapt to stress. This examination will provide educators with logical data related to stress so as to help students to avoid stress from the earliest starting point. As remedy is

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better than cure that's why the research can be very fruitful for the administrators of the college.

### *Objectives of the study*

Because of the contradictory literature review result it is difficult to conclude the effect of gender, institution type and academic group specifically on perceived stress of college students. For this reason the study was conducted aims to explore the following objectives-

- To investigate there is any role of gender on perceived stress of the college students.
- To explore whether there is any effect of institution type on perceived stress of the participants.
- To investigate the effect of academic group on perceived stress of the respondents.

## **METHOD AND PROCEDURES**

### *Samples*

The 120 respondents of the study have been selected conveniently from Rajshahi College, Rajshahi City College, Islamia College and Adarsha Degree College Rajshahi; balancing sex, government versus non-government to college students, and science, arts, commerce group students. However, these colleges have been selected through lottery process to maintain the principle of randomization.

### *Variables*

- Independent variables: Gender, Institution type (Government or non-government college), and Academic group (Science, arts, or commerce).
- Dependent variable: Perceived stress

### *Ethics*

Formal study permission was taken from Academic Committee of the Department of Clinical Psychology, University of Rajshahi, Bangladesh. Before anyone could take part in the study, they give a written statement of consent based on their knowledge. Respondents' confidentiality of data was ensured, and then the participants provided the information.

### *Measuring instruments*

Measuring instruments that are relevant with the present study were used. These are mentioned respectively:

### *Personal information*

The collected personal information includes age, gender, socioeconomic status, college type (government or non-government) and academic group (science, arts and commerce).

### *Perceived Stress Questionnaire (PSQ; Keya, 2006)*

For assessing the degree of perceived stress, the Perceived Stress Questionnaire was applied. This scale (PSQ) was developed by Keya (2006) for the usage in Bangladesh. The internal consistency of the PSQ was examined by means of Cronbach's Alpha reliability and (Keya, 2006) found that overall scale's Cronbach's alpha (0.77) was sufficient taking into account. The 20-item PSQ has been created which are reliable and internally consistent ways to assess perceived stress. The test-retest approach was used to verify the scale's temporal consistency ( $r=0.73$ ). The scale has 20 statements with choices varying from never to highly agree. The five items (7, 9, 10, 12, and 14) are negative, while the remaining fifteen items are positive.

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The higher scores on this scale suggest that the people taking part of the study are under a lot of stress.

### Procedures

The current cross-sectional research was accomplished among intermediate college students of Rajshahi district and the data collection was started from March and ended to November 2020. The 120 sample was included in the study deliberately their own choices. Two governments and two Non-government College were taken through lottery among the total government and non-government colleges in Rajshahi district in order to collect research data. 30 samples were taken from each college which included 10 science students, 10 arts students and 10 Commerce students. An equal number of boys and girls were included for each college from each group of intermediate college students. At first, researcher established the necessary rapport with the respondents. Then written informed consent was obtained from individuals prior to participating in the study. Then respondents' confidentiality of data was ensured, and then the participants provided the information. After that the questionnaire was delivered to the respondents asked to fill up each statement genuinely. After completing the answer questionnaires were taken and verified whether all the response were correctly provided. If all goes well, the researcher thanked the participants.

### Statistical Analyses

By means of Perceived Stress Scale the data were acquired. Then, row data was created by calculating the answered parts of the scale given to each participant. To examine the obtained scores, the data were coded and entered into IBM SPSS (version-25). Using independent sample *t*-test gender difference was calculated. To analyze the perceived stress difference between non-government and government college students' independent sample *t*-test was used. To know disparities of perceived stress among academic group (science, arts, commerce) the one-way analysis of variance was employed.

## RESULTS

### *The effect of Gender on Perceived Stress*

*Table-1 Mean Difference in Perceived Stress Scores of male and female students*

DV	IV	N	Mean	Mean Difference	SD	df	t	P-value
Perceived Stress	Male	60	50.98	1.70	7.046	118	1.416	0.159
	Female	60	52.68		6.066			

\**P*=NS

Results in the table-1 shows that, the mean and std. deviation of the male respondents are 50.98 and 7.046 and the mean and std. deviation of the female respondents are 52.68 and 6.066. Table-1 shows that mean difference is 1.70 in which is not statistically significant ( $t=1.416, p>0.05$ ). That means male and female students feel nearly same level of perceived stress.

*The role of Institution type on Perceived Stress*

**Table-2 Mean Difference in Perceived Stress Scores of Government and Non-government college students**

DV	IV	N	Mean	Mean Difference	SD	df	t	P-value
Perceived Stress	Government	60	52.92		7.169			
	Non-government	60	50.75	2.167	5.841	118	1.815	0.072

\*P=NS

The results reveal that mean difference in perceived stress score (2.167) of government and non-government college students is not significant ( $t=1.815, p>0.05$ ). That means that the government and non-government college students suffer from almost the equal level of perceived stress.

*The effect of Academic group on Perceived Stress*

**Table-3 The results of One way ANOVA on perceived stress scores of three academic groups (science, arts, and commerce)**

DV	Source of variance	Sum of Squares	df	Mean Square	F	P-value
Perceived stress	Between Groups	67.517	2	33.758	0.772	0.465
	Within Groups	5119.150	117	43.753		
	Total	5186.667	119			

\*P=NS

Table-3 shows that the main effect of academic group on perceived stress ( $F=0.772, p>0.05$ ) was not statistically significant. The mean difference among science, arts, and commerce students were not statistically significant. That means there are no significant mean difference exists among science, arts, and commerce students. This test results also means science, arts, and commerce students feel nearly same level of perceived stress.

**DISCUSSION**

The study was conducted on intermediate college students of Rajshahi district of Bangladesh in order to see the effect of gender, academic group and institution type on perceived stress of the participants. The study was conducted on 120 college students. Perceived stress of the college students was measured by using a Bangla developed version of Perceived Stress Questionnaire. Three hypotheses were formulated to explore the effect of gender, institution type and academic group on perceived stress. To analyze the data of the current study independent sample t-test and one way analysis of variance were applied.

The first objective of the study was to investigate whether there is any role of gender on perceived stress of the college students. And the results (table-1) showed that the mean difference was found between male and female students is not significant in terms of perceived stress ( $t= 1.416, p>0.05$ ). Perceived stress is not significantly affected by gender. Some prior study reported the same outcome (Denovan et al., 2019; Alshagga et al., 2015) despite the fact that several studies yielded opposing result (Costa et al., 2021; Graves et al., 2021).

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The second objective stated that to explore whether there is any effect of institution type on perceived stress of the participants. The result showed in table-2 indicated that there was no significant effect of institution type (Government College and Non-government College) on perceived stress of the students of college. This finding is obvious because the stage of college students face nearly same kind of stressors like academic pressure, life style, and some other family related stressors. Perceived stress in private and public students was found to be significantly tied to everyday life stressors such as housing conditions, isolated from home, and a shortage of leisure time (Alshagga et al., 2015) considering the fact that certain study illustrated the contrary outcomes (Eva, et al., 2015; Muhammad et al., 2021).

The third objective of the current study was to investigate the effect of academic group on perceived stress of the respondents. And the result was also indicated that no significant difference was existed among the respondent groups (science, humanistic and commerce) in terms of perceived stress ( $F=0.772, p>0.05$ ). The hypothesis was not confirmed by the result of the study. The socio-economic status is also one of the best predictors of perceived stress. Most of the samples in this current study belong to middle class family. Only 12 samples belong to lower class and 5 samples belong to upper class family. Since most of students belongs to middle class family that's why they feel nearly same kind of perceived stress. Most of the respondent's environment they were belongs to nearly same and stress also depends upon environment. Factors related to the environment have been identified to be the basis of student's higher level of stress (Azila-Gbettor., 2015).

### CONCLUSIONS

Our results revealed that perceived stress is not significantly affected by gender, institution type and academic group rather the dependent variable may depend on other factors. It is highlighting the significance for additional research inquiring gender, institution type and academic group. The idea for the current study came from the realization that students respond to and manage stress in distinct ways due to a variety of unique and contextual characteristics that might be tough to accurately record in observational research. PSQ-20 indicated to be a reliable, verified, and fast questionnaire for measuring stress. The questionnaire does not contain items addressing all social variables; the present investigation's stress level may be undervalued. Furthermore, every year, college students are burdened by financial issues, lack of amenities such as computers, books, overload hours and lectures which are the sources of stress (Bataineh., 2013).

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### **Conflict of Interest**

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