ACADEMIC STRESS, SUICIDAL IDEATION & MENTAL WELL-BEING AMONG 1ST SEMESTER & 3RD SEMESTER MEDICAL, ENGINEERING & GENERAL STREAM STUDENTS

Nabanita Banerjee,

Rajabazar Science College,
Calcutta University, India

Dr. Ishita Chatterjee,

Rajabazar Science College,
Calcutta University, India

ABSTRACT

In today's ultra competitive environment, students face more stress than ever be, it related to studies, examination, peer, teachers or parent's pressure. The present study aimed to explore whether academic stress, suicidal ideation, mental well-being differ significantly in terms of 1st semester and 3rd semester students of medical, engineering and general field. For this study, a sample of 444 students of medical, engineering and general courses was taken. Students were equally distributed in each stream with 148 students. Tools used included the Adult Suicidal Inventory, Mental well-being Scale and Student Life Stress Inventory.

Data were collected using the technique of stratified sampling. Data were statistically analyzed by mean, S.D., ANOVA and Product Moment correlation. The present study findings revealed that the students of 3rd semester are more stressed and prone to suicidal ideation than 1st semester students as well as significant positive correlation exists between academic stress and suicidal ideation but mental well-being is negatively correlated with both of the variables - academic stress and suicidal ideation.

Keywords: Academic Stress, mental well-being, suicidal ideation, semester.

INTRODUCTION:

Present age is the age of competition. Scientific and technological advancement all over the globe has made man very conscious and sensitive about his studies, vocation, lifestyle, relations etc. This immense progress has given rise to certain problems. One of the major problems of today's world is stress. Every person has a unique nature as regard to capabilities, attitudes, personality characteristics and interest. The students have a major impact of stress due to bloodshed competition in every field. Stress occurs when there is substantive imbalance between environment and demand and response capability of organism.

The event of joining the college is one of the major and significant transitions in the life span of any individual. It defines one's future career and the path towards realization of his or her vocational goal.

Stress can exist at any stage of life, however, the time of entry to college is fraught with a number of changes that the likely hood of stress at this stage increases. The new surroundings, non-availability of older support system, the demand for acting and thinking independently, a different style of teaching, moving away from home and need to take one's own responsibility rather than depending on others for directions, are some of the factors that might make more difficult for a college entrant.

Academic work in learning environment poses great challenges both mentally, physically and psychologically on the learner. The academic challenges are very stressful and different learners respond mentally to such pressures differently. Academic stress is therefore mental and emotional pressure, tension or stress that occurs due to the demands of college life. (Mac. George, Samter & Gilliham, 2005). Stress associated with academic activities has been linked to various types of psychological factors which are manifested in terms of negative outcomes with varying extents among the students. Researchers have shown that college students are most susceptible to stress. Gray and Rottman (1988) stated that "College Students represent a population who perceive and experience an immense amount of stress."

The transition from high school to college is a challenging life transition in the development of young adults and many students are inadequately prepared for the psychological, emotional and academic realities of higher education (Francis, Mc. Daniel & Doyle, 1987).

The association between academic stress or and suicidal ideation among college students have been well documented in several research studies. Toero et al arranged that there is a strong link between the pressure to excel in college and suicidal behaviors among students. In their study, Toero et al showed that the number of suicide cases in a year usually peaked during examination periods where children and adolescents experienced a high level of stress in school. Juon et al examined factors contributing to suicidal behaviors in 9.886 highs schools Korean adolescents and found that students who reported feeling a high level of stress regarding academic performance and higher education were more likely to have serious thoughts about suicide than those students who did not experience academic stress,

Mental well-being of the learner is very important for efficient learning and proper development of personality. The research findings showed that there is a significant negative relationship between stress and mental health which means that increase of stress lead to decrease of mental health and vice-versa.

Now a day's academic stress has become an important subject matter in research studies as well as in our society. According to Wilks (2008) academic stress arises when academic related demands exceeds to those available resources to an individual which he / she adopts. Research findings revealed that mental well being and suicidal ideation are considered as two correlated factors of academic stress among college students (Ali Mostafei, Toero et al 2001).

The aim of the present study is to determine whether 1st Semester and 3rd Semester medical, engineering and general stream students differ significantly in terms of academic stress, mental well-being and suicidal ideation as well as also to find out whether correlations exist among academic stress, mental well-being and suicidal ideation.

LITERATURE REVIEW:

1) Effect of perceived Academic stress on Student's Performance. Mussarat Jabeen Khan G.C. University, Lahore, Seona Altaf and Hafsa Kavsar, International Islamic University, Islamabad, FWU Journal of Social Sciences, Winter 2013, Vol.7, No. 2, 146-151.
Current study explored the effect of academic stress on student's performance and the impact of demographic variables like gender, age and educational level. A sample of 150 students was taken from different universities located in Islamabad, 75 respondents were males and the remaining 75 were females. The results should significant effect of academic stress on student's performance . There was a non-

significant difference between male and female university students on scores on the Perceived Stress Scale (PSS). A significant difference between junior and senior students was found on the PSS. Academic stress was found to be higher in younger students than older students. There was a non-significant difference on PSS scores among students when stress was measured at the beginning and at the end of the semester.

2) The relationship between stress and mental health in university students : Ali Mostafaei, Department of Psychology, Pa Yame Noor University : Annals of B : Logical research, 2012, 3(7) : 3468-3473.
   The purpose of this research was to study the relationship between stress and mental health among male and female university students . 1000 students (66 male and 34 female) were selected randomly. Courdon Stress Scale and GHQ were used to carry out the study. The results of the study showed that there is a negative correlation between stress and mental health. Analyze of variance and Tukey's post-hoc test also showed that students in technical fields compared with students in the humanities, have greater mental health. No significant correlation.

3) Looking beyond environmental factors : An examination of some personal factors as predictors of suicidal ideation among college students. Sreeparna Dutta and Sadhan Das Gupta : Indian Journal of Community Psychology, 2013, 9(4), 87-98.
   Suicidal ideation are more common than complete suicide and although most patients with suicidal ideations do not ultimately commit suicide, it may be taken as a tendency towards negative coping and increased risk towards self-mutilating behavior. To find the extent to which suicidal ideation is predicted by emotional intelligence, other personality factors and different self-concept dimensions data was collected from 254 undergraduate college students (263 males and 91 females) aged between 19 and 21 years. Tools used include ASIQ, NEO5 Factors Inventory EIS, TSCS:2). Here purposive sampling was used. Results indicated significant negative correlation between ASIQ scores & levels of conscientiousness, ASIQ scores & level of EI, ASIQ scores & moral self concept, personals elf concept, family self concept, social self concept, significant positive correlation were found between ASIQ scores and levels of neuroticism. The results provide insight into the factors that predict suicidal ideation among youths. Several need based interventions are suggested.

4) Relationship between Academic Stress and Suicidal Ideation : Testing for depression as a Mediator using Multiple Regression : Rebecca P. Ang, Vivien S. Huan, Child Psychiatry Hum Dev.(2006) 37 : 133-143.
   Relations among academic stress, depression and suicidal ideation were examined in 1,108 Asian adolescents 12-18 years old from a secondary school in Singapore. Using Baron and Kenny's framework, this study tested the prediction that adolescent depression mediated the relationship between academic stress and suicidal ideation in a four-step process. The previously significant relationship between academics tress and suicidal ideation was significantly reduced in magnitude when depression was included in the model providing evidence in this sample that adolescent depression was a partial mediator. The applied and practical implications for intervention and prevention work in schools are discussed. The present investigation also served as a demonstration to illustrate how multiple regression analyze can be used as one possible method for testing mediation effects within child psychology and psychiatry.

METHODOLOGY:
RESEARCH DESIGN:

The present study is done under the category of descriptive research method which describes the present conditions, events or systems based on impressions and reactions of the respondents. Distributions may also be concerned about weightage and difference of existence of the variable or the study may be about the correlation of one variable with another variable.

The method was used to determine whether gender, experience as well as different courses of study differ significantly in terms of academic stress, mental well-being and suicidal ideation as well as to find out whether they are correlated with each other.

RESPONDENTS OF THE STUDY:

The present study consists 444 undergraduate students (222 male and 222 female) enrolled in various courses of different colleges who volunteered to give data in the study. Here stratified sampling was followed.

RESEARCH INSTRUMENT:
GENERAL INFORMATION SCHEDULE:

This was used to gather information needed for the study. It contains information about socio-demographic variables like age, sex, education, domicile and occupation.

Inventory : This inventory was used to assess the level of students' life stress.

Scale : This was used to measure the mental well-being of focusing entirely on positive aspects of mental health.

Questionnaire : This was used to assess the frequency of occurrence of suicidal ideation within the past month.

Research Procedure : All the questionnaires along with general information schedule were administered to various undergraduate students across different courses of study. The selected colleges were contracted. As far as possible the authorities of the concerned colleges were requested to arrange for data collection in the first half so that the respondents were not fatigued.

Statistical Tool : All the data collected were inputted and analyzed using statistical package for Social Sciences (SPSS) and the following statistical tools were used.

- Mean and S.D. were used to describe the levels of the variables and also to find out the consistency of the given data.
- Product moment correlation was used to test the relationship of mental well-being and suicidal ideation with academic stress.
- 3x2x2 ANOVA was conducted to test whether academic stress, mental well-being and suicidal ideation differ significantly in terms of group, gender as well as semester.

FINDINGS AND DISCUSSIONS:

From the statistically analyzed data, it is found that the mean values of male students of medical, engineering and general students of 1st sem are 181.7027, 110.2973, 64.8919 respectively and the corresponding S.D. Values are 8.18150, 12.49859 and 5.25877 respectively.

On the other hand, the mean values of 1st sem female students of medical, engineering and general group are 200.6216, 144.7297, 77.4865 respectively with corresponding S.D. values 6.17950, 20.29457, 6.64422.

The mean values of 3rd sem male students of medical, engineering and general course are 184.2162, 115.5946, 65.7838 with corresponding S.D values 9.64692, 9.49111, 2.75010. The mean value of 3rd sem female students are 201.0541, 154.6486, 78.4054 respectively with corresponding S.D. values 4.38397, 17.29839, 7.04927.

ANOVA was conducted determining whether there is a significant difference between male and female students, between 1st sem and 3rd sem students and also among medical, engineering and general students in terms of the magnitude of the academic stress.

For mental well-being, it is found that the mean values of 1st sem male students of medical, engineering and general group are 16.5405, 35.0811, 54.4054 respectively with corresponding S.D values of 2.20598, 3.16560, 2.82311 and the mean values of 1st sem female students are 20.4595, 44.6486, 51.3514 respectively with corresponding S.D values 1.90896, 3.22504, 6.10199.

On the other hand the mean values of 3rd semester male students of medical, engineering and general group are 96.0811, 34.7838, 54.0006 respectively with corresponding 2.13929, 2.93575, 8.77180 and the mean values of 3rd Semester female students are 21.5946, 45.7838 and 52.5135 respectively with corresponding S.D. values of 1.92151, 3.17223, 5.70877.

Here, ANOVA was conducted for determining whether there is a significant difference between male and female students between 1st sem and 3rd sem students and also among medical, engineering and general students in terms of the magnitude of the mental well-being.

For suicidal ideation, it is found that the mean values of 1st semester male students of medical, engineering and general group are 102.48657, 64.2703 and 30.8378 respectively with corresponding S.D. values of 6.98260. 6.21221 & 4.86777. The mean values of 1st Semester female students of medical, engineering and general group are 135.6216, 84.5135 and 44.6757 respectively with corresponding S.D values of 9.16622, 5.80527 and 5.42655.

On the other hand it is also found that the mean values of 3rd semester male students of medical, engineering and general group are103.9459, 64.10076 and 33.4865 respectively with corresponding S.D. values of 6.38986, 6.10076 and 4.077040. The mean values of 3rd Semester female students of medical, engineering and general group are 133.3514, 84.1081 and 45.8108 respectively with corresponding S.D. values of 9.83536, 6.18593 and 5.33770.

Here, ANOVA was conducted for determining whether there is a significant difference between male and female students between 1st semester and 3rd semester students and also among medical, engineering and

general students in terms of the magnitude of the suicidal ideation.

By using product moment correlation, it can be said that significant negative correlation were found between Mental well-being and suicidal ideation, mental well-being and academic stress. On the other hand significant positive correlation was found between academic stress and suicidal ideation.

GENDER INFLUENCE:

From the above obtained data which have been statistically analyzed it has been said that in majority female students are under higher levels of academics tress, mental well-being and suicidal ideation than male students irrespective of group as well as course of study. The obtained results appear to be in consonance with the conclusions drawn in a number of earlier studies investigating stress, mental well-being as well as suicidal ideation among students of different group. Almeida and Kessler (1998) assessed the experience of daily stressors and psychological distress among male and female subjects and concluded that females experienced higher performance of high distress as compared to males. Brougham, Zail, Mendoza & Miller (2009) also found that college women reported a higher overall level of stress. The study by Ozgan et al reported that female students experienced more stress than male students. The present study findings have also been showed that gender has an significant impact on mental well-being . These findings are consistent with the findings of Marin et.al. (2011) which also revealed that greater age and female gender are positively correlated to mental health help – speaking. The study by Hyun Sook Park et al. (2005) reported that the level of suicidal ideation differed between male adolescents and female adolescents . The suicidal ideation score for female adolescents was much higher than those of male adolescents and the present study finings are consistent with these study findings.

COURSE OF STUDY:

In India, the courses of study generally fall within two categories, viz., professional and non-professional courses. Entry to professional courses like medical or engineering is very tough and admission process requires high level of academic excellence and persistence, on the other hand, entry to non-professional course is comparatively easier but professional courses ensure job security where as non-professional courses do not ensure job security. Thus, both types of courses of study lead different kinds of stress. The present study focuses on academic stress, mental well-being and suicidal ideation of the students of professional courses (medical and engineering) and also the students of non-professional courses (general). The present study findings reveals that academic stress is comparatively higher among the students of professional courses. Singh and Singh (2008) had also reported that professional students had more stress. The study conducted by Kuhn et al. (2005) reported that medical students having a higher risk of obtaining a supplementary examination could be attributed to the stressful academic demands like variable hour, shift or clinical rotation and steep deprivation in addition to curriculum overload.

Mental illness is a major concern for the college student population, yet nearly half of the students report receiving no education on mental health issues before starting college including education from family, friends, teachers, counselors. The present study findings reveals that the magnitude of metal well-being is comparatively low among the students of professional courses (medical and engineering) than the students of non-professional course (general). A cross sectional web-based survey (2009) also reported that medical students experience depression, burn out and mental illness at a higher rate than the general population, with mental health deteriorating over the course of medical training.

Suicidal ideation is a critical part of the suicidal process. The present study also focuses on the rate of suicidal ideation among the students of medical, engineering and general students and it has been found that the rates of suicidal ideation is highest among the students of medical courses. A Gross sectional web-based survey also reported that Medical students have a higher risk of suicidal ideation and suicide, higher rates of burnout and a lower quality of life than age matched population.

VARIATION IN SEMESTER:

Semester is meant six months, as it comes from Latin word Semestris, "of six months". The present study also focuses on the fact that how academic stress, mental well-being and suicidal ideation varies in terms of semester of the medical, engineering and general students. The study findings reveals that the students of 1st semester and the students of 3rd semester differ significantly in terms of academic stress and suicidal ideation but there is no significant difference between the students of 1t semester and 3rd semester in terms of mental well-being.

The level of academic stress is comparatively high among the students of 3rd semester than the students of 1st semester and it is supported by the study conducted by Shaikh et al (2004) which reported that senior students experienced higher levels of stress that is 95% and 98% for forth and final year students respectively due to the academic demands like having supervised clinical rotation. Furthermore that final year students are required to write their research dissertation that exposes them to additional stress.

The rates of suicidal ideation is also comparatively high among the students of 3rd semester than the students of 1st semester which is supported by the study conducted by Wallin and Runeson, 2003) that also revealed that 34% of 1st year medical students at Karolinska Institute reported suicidal ideas sometime during their lives, v.s. 44% among last year students.

Academic stress and suicidal ideation are positively correlated irrespective of gender, course of study and semester and the present study findings is supported by the study of Rebecca et al (2006). But academic stress and suicidal ideation, both of the variables are negatively correlated with mental well-being which is supported by the study of Ali Mostafaei, 2012.

CONCLUSION:

In the light of the above mentioned discussion, the following conclusions were drawn:-
- Medical, engineering and general group differ significantly in terms of the magnitude of the academic stress, suicidal ideation and mental well-being.
- Gender has an significant impact on the degree of academic stress, suicidal ideation as well as mental well-being.
- The students of 1st semester and 3rd semester, differ significantly in terms of the magnitude of the academic stress and suicidal ideation.
- There is a significant positive correlation between academic stress and suicidal ideation.
- There is a significant negative correlation between mental well-being and academic stress as well as mental well-being and suicidal ideation.

RECOMMENDATION:

1) The teachers are recommended to identify the sources of stress as far as possible and help the students to enhance their coping strategies to deal with the stressors effectively.
2) General students suffers from job insecurity after completion their study which causes stress among themselves. It is recommended therefore to increase job security like professional courses of study.

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Table 1: Means SPs and F Value of the variable academic stress

Group	Gender	Mean		S.D.		N	
		1st	3rd	1st	3rd	1st	3rd
Medical	Male	181.7027	184.2162	8.18150	9.64692	37	37
	Female	200.6216	201.0541	6.17950	4.38397	37	37
Engineering	Male	110.2973	115.5946	12.49859	9.49111	37	37
	Female	144.7297	154.6486	20.29457	17.29839	37	37
General	Male	64.8919	65.7838	5.25877	2.75010	37	37
	Female	77.4865	78.4054	6.64422	7.04927	37	37

Table 2: F Values of the variables

Source	df	Mean Square	F	Sig
Gender	1	55774.651	513.043	.000
Group	2	535092.550	4924.692	.000
Semester	1	1230.002	11.320	.001

Table 3: Mean & S.D. Values of the variable mental well-being

Group	Gender	Mean		S.D.		N	
		1st	3rd	1st	3rd	1st	3rd
Medical	Male	16.5405	16.0511	2.20598	2.13929	37	37
	Female	20.4595	21.5946	1.90896	1.92151	37	37
Engineering	Male	35.0811	34.7838	3.16560	2.93575	37	37
	Female	44.6486	45.7838	3.22504	3.17223	37	37
General	Male	54.4054	54.0006	2.82311	8.77180	37	37
	Female	51.3514	52.5135	6010199	5.70877	37	37

Table 4: 'F' Values of the variables

Source	df	Mean Square	F	Sig
Gender	1	1998.568	113.867	.000
Group	2	44653.642	2544.106	.000
Semester	1	15.892	0905	.342

Table 5: Mean & S.D. Values of the Variables suicidal ideation

Group	Gender	Mean		S.D.		N	
		1st	**3rd**	**1st**	**3rd**	**1st**	**3rd**
Medical	Male	102.48657	103.9459	6.98260	6.38986	37	37
	Female	135.6216	133.3514	9.16622	9.83536	37	37
Engineering	Male	64.2703	64.0541	6.21221	6.10076	37	37
	Female	84.5135	84.1081	5.80527	6.18593	37	37
General	Male	30.8378	33.4865	4.86777	4.77040	37	37
	Female	44.6757	45.8108	5.42655	5.33770	37	37

Table 6: F values of the variables

Source	df	Mean Square	F	Sig
Gender	1	51309.750	1178.385	.000
Group	2	238697.899	5481.962	.000
Semester	1	65.047	3.928	.052

Table 7: Correlation values of the variables

	Mental Well-being	**Suicidal Ideation**	**Academic Stress**
Mental Well-being	-	- .814**	- .828**
Suicidal ideation	- .814**	-	.945**
Academic Stress	-.828**	.945**	-