Effect of Perceived Academic Stress o**n Students' Performance**

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Current study explored the effect of academic stress on students' performance and the impact of demographic variables like gender, age and educational level. A sample of one hundred and fifty students was taken from different universities located in Islamabad. Seventy- five respondents were males and the remaining seventy-five were females. The results showed 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.

Keywords: academic stress, performance, juniors, seniors

Stress arises when there are burden on the person which exceed his available assets. If stress is harsh and extended, it can lessen academic performance, hinder with a student's capability to involve in and add to campus life, and raise the probability of substance abuse and other potentially destructive behaviors (Richlin-Klonsky & Hoe, 2003).

Researchers (Vermunt & Steensman, 2005; Topper, 2007; Malach-Pines & Keinan, 2007) have defined stress as the insight of incongruity between environmental burden (stressors) and person's ability to fulfill these demands. Researchers usually define stress as the undesirable response people have to extreme strain or other sort of burden placed on them. Stress occurs when a person deal with a situation that they recognize as irresistible and cannot manage.

In an advanced educational organization such as University (Smith, Johal, Wadsworth, Smith & Peters, 2000) where the load placed on students is based on time limit and difficulty to stand out in tests or examination, students are prone to experience stress. Researchers (Malach-Pines & Keinan, 2007; Ongori, 2007; Agolla & Ongori, 2009.; Agolla, 2009) have long recognized stress symptoms as loss of energy, elevated blood pressure, depressed mood , increase in craving, difficulty in concentrating, impatience, nervousness and strain .

One model that is valuable for understanding stress among university students is the Person-Environment Model (Misra & McKean, 2000). This model suggests that individuals can consider stressful events as demanding or frightening. Perception of educational goals as a challenge brings stress and in turn this stress creates a sense of competence and enhanced learning capability. However, perception of education as a threat brings such stress which brings forth hopeless and a foreboding sense of loss, thus leading to lower academic achievement.

Stress is considered to be a part of students' life and can impact the students coping strategies in accordance with the demands of academic life. This is so because academic work is always accomplished with stressful activities (Agolla & Ongori, 2009). Students reported their experience of high academic stress at predictable times in each semester which results from preparing and taking exams, class ranking competition, and mastering huge amount of syllabus ina comparatively very small amount of time (Rawson, Bloomer, & Kendall, 1999).

Among college students, a strong relationship is found between stressful life events and reduced academic performance as well as there is a link between health related quality of life and stress (Dusselier, Dunn, Wang, Shelley & Whalen, 2005; Misra & McKean, 2000). Undergraduate students stated that stress was the most common factor among all health factors which impact their academic performance, as stress harmfully affects physical and psychological health (Dwyer & Cummings, 2001). Wintre and Yaffe (2000) concluded that high level of stress during the first year of college forecasst lower level of overall adjustment and can make the students more susceptible to many social and psychological problems, thus leading to a lower grade point average (GPA) in the final year. Many studies have addressed this issue and it was found that many psychological problems, such as depression, anxiety, and stress have an impact on the studenst academic achievement. Williamson, Birmaher, Ryan, and Dahl (2005) reported that in anxious and depressed youth, stressful life events are considerably elevated which in turn lead to low performance in academics.

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Now a day's stress has become an important subject matter in research studies in academic circle as well as in our society. This research was conducted to study the effect of academic stress on students' performance. Academic stress among students has long been a topic of research study and researchers have recognized different important stressors which include excessive assignments, unhealthy competition among class students, fear of failure in educational achievement and lack of pocket money (Fairbrother & Warn, 2003), poor interpersonal relationships in class or with lecturers, and family problems. Among Institutional level stressors are overcrowded lecture halls, (Ongori, 2007; Awino & Agolla, 2008), the semester system, and insufficient resources to perform academic work. Kumar and Jejurkar (2005) concluded in their studies that academic factors were mainly responsible for a higher level of stress among undergraduate students. Students experience stress due to different many factors including issues of time management, financial matters, interaction with lecturers, personal subjective goals, social behavior, adjustment in the academic culture lack of support system (Wilks, 2008), admission process, high expectation of parents, curriculum comprised of complex concepts, unsuitable school timings, unbalanced student-teacher ratio, physical environment of classroom, unhealthy student teacher interaction, hard and fast rules of discipline, too many or complex assignments, teaching methodology, unconcerned teacher's attitude and overemphasis on weaknesses rather than acknowledging strengths (Masih & Gulrez, 2006). Academic stress arises when academic related demands exceeds to those available resources to an individual which he/she adapts. (Wilks, 2008). And this stress must not be overlooked as it negatively affects the general adjustment of the students. (Hussain, Kumar, & Husain, 2008).

Misra and Castillo (2004) conducted a study, in which they concluded that perception and reaction to stress is different in both genders i.e. male and female while Jogaratnam and Buchanan (2004) found a significant difference between male and female students on the time pressure factor of stress. Sulaiman, Hassan, Sapian and Abdullah (2009) studied that males and female students experience different level of stress and an explanation may be because females are more likely to be emotional than males in reaction to their environment.

Hypotheses

To explore the effect of academic stress on students' performance the following hypotheses were formulated and tested.

- Academic stress effects students' performance.
- Academic stress will be higher in female students as compared to male students.
- Academic stress will be higher in younger students than older students.
- Academic stress will be higher in less qualified students (junior students) than highly qualified students (senior students).
- Academic stress will be higher among students at the end of semester than at the beginning of semester.

Method

Instrument

Sheldon Cohen's Perceived Stress Scale (Cohen, Kamarck & Mermelstein, 1983) is a measure of the degree to which situations in one's life are appraised as stressful. It has 10 items. It uses a 5 point rating scale ranging from "0" to "4". 0 = Never, 1 = Almost Never, 2 = Sometimes, 3 = Fairly Often, 4 = Very Often. Items 4, 5, 7 and 8 are reversed scored. The reliability of Sheldon Cohen's Perceived Stress Scale according to different researchers is .78 (Cohen & Williamson, 1988), .89 (Roberti, Harrington & Storch, 2006) and.83 (Gonzalez & Ladero, 2007).

Sample

The sample consists of 150 university students, purposively selected from different universities located in Islamabad, i.e., Quaid-e-Azam University Islamabad, Bahria University Islamabad, Air University Islamabad and Riphah International University Islamabad. Among these, 75 participants were male students and 75 were female students. The age range of the sample was 18 to 25 years.

Procedure

The data was collected by administering the scale in a group to the student participants. The respondents were instructed to complete the scale by giving a response to every item of scale. Informed consent was taken and all the respondents were assured that the data would be kept confidential. Their percentages of previous semester's exam were taken as measure of academic performance. After getting data, scoring and analysis were done.

Results

Table 1
Linear Regression Analysis showing Academic stress as the predictor of student's performance (N=150)

Model	*B*	*SE*	β	*t*	*p*
Constant	1.99	.12		16.37	.000
Academic stress	-.02	-.01	-.19	2.34	.020
R^2 = .30					
ΔR^2 = .30					

Table 1 show that academic stress predicts student's performance. The ΔR^2 value of .30 indicates that 30 % variance in the dependent variable which is student's performance can be accounted for by the predictor which is

the academic stress with $F = 5.49$, $p < .001$. Academic stress has a significant negative effect on student's performance ($\beta = -.19$, $p<.001$).

Table 2
Mean Standard Deviation and t-value of male and female students on Perceived Stress Scale (PSS)

Gender	*N*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Male	75	17.02	5.09	0.09	0.09	-3.31	.25	0.27
Female	75	18.56	5.93					

Table 2 indicates the non-significant difference between males and females students on Perceived Stress Scale (PSS).

Table 3
Mean, Standard Deviation and t-value of younger and older students on Perceived Stress Scale (PSS)

Age	*N*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Younger	114	18.49	5.46	2.79	0.00	.85	4.96	0.53
Older	36	15.58	5.36					

Table 3 indicates the significant difference was found on the mean scores between younger and older students on the Perceived Stress Scale (PSS). Younger students scored higher (M=18.49, SD=5.46) on the perceived stress scale than older students (M=15.58, SD= 5.36). So, academic stress is higher in younger students than older students.

Table 4
Mean Standard Deviation and t-value in less qualified students (juniors) and highly qualified students (seniors) on Perceived Stress Scale (PSS)

Education	*N*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Juniors	101	18.41	5.69	1.98	0.04	0.00	3.80	0.35
Seniors	49	16.51	5.11					

Table 4 indicates the significant mean difference between junior and senior students on Perceived Stress Scale (PSS), less qualified or junior students scored higher (M=18.41, SD=5.69) on the perceived stress scale than highly qualified or senior students (M=16.51, SD=5.11). So, academic stress is higher in less qualified or junior students than highly qualified or senior students.

Table 5
Mean Standard Deviation and t-value of students at the beginning and at the end of the semester Perceived Stress Scale (PSS)

Semester	*N*	*M*	*SD*	*t*	*p*	*LL*	*UL*	Cohen's *d*
Beginning	88	17.85	5.27	0.15	0.87	-1.68	1.97	0.02
End	62	17.70	6.00					

Table 5 indicates the non-significant difference among students at the beginning and at the end of the semester.

Discussion

Present research studied the effect of academic stress on student's performance and the consequences of some demographic variables like gender, age, educational level and at the beginning and end of the semester. Perceived Stress Scale (PSS) was used to measure stress among students. It consists of 10 items and reliability is 0.74 which shows that the scale is reliable.

According to first hypothesis, academic stress effects student's performance. Result found it significant because with the semester system, students have less time period but they are required to accomplish many modules and this leads to stress. It was also supported by the existing literature. A study by Safree, Yasin and Dzulkifli (2010) also indicated the same results. They found that depression, anxiety, and stress are negatively correlated with academic achievement. The higher the stress, the lower the academic achievement of students. The study found that the ability to manage stress was equally important. The way students perceive the stress is an important factor in its seriousness. Negative or excessive stress perception contributes to the students experiencing psychological and physical impairment (Murphy & Archer, 1996). Students who are able to handle their stress effectively perform much better than those who are unable to control their stress.

According to second hypothesis, academic stress will be higher in female students as compared to male students. The result indicated the non-significant difference between males and females on Perceived Stress Scale. It is supported by the existing research conducted by Watson (2002) to inspect the academic stress among college students enrolled in a state college in the Philippines with reference to gender differences. The results found non-significant difference in the perceived stress between male and female students because female students have also learned the time management and stress coping strategies like male students. They enjoy their studies by adopting effective and efficient study habits. Moreover they are much devoted, concerned and consistent in their studies.

According to third hypothesis, the academic stress will be higher in younger students than older students. The result demonstrated a significant difference occurs between younger and older students on Perceived Stress Scale. Academic stress is higher in younger students than older students as younger students are not that much adjusted to academic stress of university as seniors are. They feel adjustment problems and more but the older students reported enhanced time management skills as compared to younger students (Trueman & Hartley, 1996), because they have learned and adjusted themselves with successful time management behaviors which in turn leads to less academic stress and anxiety.

According to fourth hypothesis, academic stress will be higher in less qualified students (juniors) than highly qualified students (seniors). Result showed the significant difference between junior and senior students on Perceived Stress Scale. Juniors scored higher on the Perceived Stress Scale than seniors. Academic stress is higher in less qualified students (juniors) than highly qualified students (seniors); as less qualified students are less experienced, have low maturity level and are more victimized by academic stress of university as compared to the seniors who are not only mature and experienced but are also well adapted and well-adjusted to academic stress. According to Porter (1990), almost 60% of university students left university without completing their degrees; the majority of these students leave within the first two years due to incapability of managing their psychological conditions especially to cope with stress.

According to fifth hypothesis, academic stress will be higher among students at the end of semester than at the beginning of semester. The result indicated the non-significant difference among students at the beginning and at the end of the semester because in semester system no matter; whether it is the start or end of semester students mostly have to remain vigilant throughout the semester. It is the demand of semester system to remain active and put extra efforts by studying on regular basis. Now-a-days more challenging and innovative tasks are assigned to students which maintain enthusiasm and competition among them rather than creating boredom and stress.

Limitations and Suggestions

The generalization of this study is somewhat questionable as it has some limitations:

- The sample of the study was small. So to overcome this limitation sample size must be increased and regionally diverse.
- Many students were reluctant to give their percentages. In order to overcome this limitation their academic record can be confirmed from their respected departments.
- Students might have manipulated their true responses so it can be overcome by using counter questioning.
- Poor time management behaviors can also be the cause of academic stress so for future research we must evaluate the study habits of students by asking them how much time they give to their studies? There must be the use of any other specific scale which can directly and accurately explore their study habits.

Conclusion

This study was conducted to investigate the effect of academic stress on student's performance and to compare academic stress among students on the basis of their gender, age, educational level and at different timings during semester. A sample of one hundred and fifty students was taken from different universities of Islamabad. Regression analysis and independent sample t-test were applied for analysis. The results showed negative effect of academic stress on student's performance and non-significant difference between males and females on Perceived Stress Scale (PSS). A significant difference was obtained between less qualified (junior) and high qualified (senior) students, younger and older students, but non-significant difference among students at the beginning and at the end of the semester. So it was concluded from this study that if academic stress was severe or delayed, it decreases student's academic performance; hinders his ability to study efficiently and better time management. So students must develop effective study habits by giving appropriate time that must fulfill the demand of their course.

Implications

The findings of this study will help the students, intellectuals, instructors, career and counseling centers, and the University administrations to put in place all those mechanisms that can lessen the impacts of stress on the students. The finding spurs intellectual forums on the issue of academic stress among students in higher institutions and helps the readers to peep into the actual causes of poor academic performance and academic stress.

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