
VALIDATING AND MEASURING STRESS CRITERIA FOR B-SCHOOL STUDENTS

PRIYANKA B.DAVE

Abstract: Although higher education institutions are striving to foster quality educational environments for their students, a number of college students are known to experience high levels of stress rather than satisfaction during their B-School years. The study adopts a Factor analysis, which examines the Factors such as fraternity and sorority activities, health-related factors, social support, time management, hours worked in a week, sleep and attendance etc. All of the factors that have been reviewed in the literature can contribute to a college student's level of stress.

Key words: Higher education, stress, scale, validation

Introduction: Stress can be defined as “a state of mental or emotional strain or suspense” and also as “a number of usual reactions of the body (mental, emotional, and physiological) intended for self preservation (Princeton University, 2001).” Researchers (Vermunt and Steensman, 2005; Topper, 2007; Malach-Pines and Keinan, 2007) have defined the stress as “the perception of discrepancy between environmental demands (stressors) and individual capacities to fulfill these demands.” According to Campbell (1992), “the adverse reaction people have to excessive pressure or other type of demands placed on them.”

Stress crops up when a person has to tackle a circumstance that s/he perceives as overwhelming and cannot cope up with.”

Extreme stress can lead to a depressive disorder which is disability where individual pins down or snaps the body, mood, thoughts and feelings and behaves aggressively. It influences the way an individual thinks, feels, eats, sleeps, acts and reacts. These problems continue some times for weeks, months, or years until taking proper healing therapies. (Muhammad S. Khan et, al 2006). This condition may be acute, episodic acute and chronic stress. Academic institutions and their environment have entirely different work surroundings in contrast of nonacademic environment and therefore they produce different symptoms, causes, and consequences of stress in the academic institution (Elfering et al., 2005; Chang & Lu, 2007).

Literature Review: Students have many obstacles to conquer in order to attain their best academic performance. It takes a lot more than just studying to accomplish a flourishing career. A student's GPA determines so many things such as class rank and entrance exams to graduate school. Much research has been done looking at the correlation of numerous stress factors that college students' experience and the effects of stress on their academic performance. A name given to such stress factors by Hatcher and Prus (1991) referred to these stress factors as academic situational constraints. Their study took into account

a mixture of factors that can reduce a student's academic performance. Factors such as **fraternity and sorority activities** (F₁), or having a boyfriend or girlfriend taking away from precious time. This factor by itself could attribute to stress and affect the students overall performance being superior to the average college student.

There are also a number of **health-related factors** (F₂) that can be included in to a student's academic performance, and therefore have consequence on their overall academic performance. The amount of exercise, nutritional routines, and also the amount of social hold up the student perceives all can contribute to how a student academically performs (Hammer et al, 1998). Exercising too much or not at all can influence academic performance. Taking time out of frequent study hours to work out pulls away from grades. A frequent occurrence on college campuses is students becoming almost addicted to exercise, turning a healthy behavior into one that is psychologically unhealthy. Adequate exercise is a stress booster and too much of it can cause stress and defocus from academics.

The effects of superficial **social supports** (F₃) were also reported. A study revealed that the amount of social support from the college faculties and external contributors like family, friend and mentors can make enormous impact on students' accomplishment. Support they get such as emotional, academic and financial are tremendous factors in the success of students. The years spent at college can be a stressful and life changing experience, having own family and friends along with the university or college all be there is crucial these are constantly creates stress in students life these are constant source of stress (Calderon, Hey, & Seabert, 2001). If the student has a family that sometimes involves his or her own children, the support of everyone is needed even more, to achieve the goal of graduation. (Trockel et al., 2000).

The correlation **between hours worked in a week** (F₄) and stress were obvious. The more time spent at other work the less time a student spends studying.

Having to hold down some projects and which they do for getting money and still be a college student is a constant source of stress (Calderon, Hey, & Seabert, 2001). They also mentally juggling the two roles of workplace and college student can itself be stressful. Finding the time to work a full or part time job and take it seriously, and also maintain focus on academic studies can be perceived as stressful. Being exhausted from working the night before can cause a poor attendance record and also give a student less time to study, resulting in a poor academic performance.

The most significant contribution that was found the effects of sleep (F5) on students 'stress. One study took into account previous research that had been done in area of sleep, not just on college students but also on the general population. Kelly, Kelly, and Clanton (2001) "classified sleepers into three categories. 1) Short sleepers, individuals who, when left to set their own schedule, slept six or fewer hours. 2) Average sleepers, individuals who slept seven or eight hours, and 3) long sleepers, individuals who slept nine or more hours out of twenty-four" (p. 84). The study found that people who were considered to be long sleepers reported higher GPAs.

One thing that this study did not take into account was that some past research on sleep suggests that people who sleep fewer hours a night may have psychological maladjustment. Sleeping shorter amounts of time has shown to increase factors such as anxiety and stress, which have been associated with academic performance (Kelly et al, 2001). These factors cause students problems by causing shortened attention span and also increasing the number of errors students make on tests.

Another study took the hours of sleep correlation with GPA to another level by taking factors into account like amount of sleep a student gets on the weekends versus during the week, the average time a student gets up in the morning during the week, and waking time on the weekends. Trockel, Barnes, and Egget (2000) found that variables such as later weekday wake-up and later weekend wake-up times were associated with a lower stress. This study seems to take the research from previous study further, by asking questions specifically related to when the sleep is obtained and what time of the morning a student wakes up.

With attendance (F6) having a main influence on academic performance, even to the point of some professors using it as a requirement to pass a course, it is a great pointer of a student's overall stress level. One major prediction of class attendance is a student's GPA and level of stress prior to enrolling in the class. Other factors in class attendance comprise the level of courses the student is taking. (Devadoss & Foltz, 1996).

There are many factors that can cause stress and influence a student's academic performance and therefore affect his or her overall performance. The factors include exercise, nutrition, sleep, and work and class attendance. A college student may find him or herself in a juggling act, trying to support a family, taking care of job responsibilities, and at the same time trying to make the most of the college career. All of these factors can affect the grades of students, which ultimately affect the rest of their lives.

All of the factors that have been reviewed in the literature can contribute to a college student's level of stress. By themselves these constraints may have no effect at all on a student, but when combined, a student could perceive them as stressful, and the stress factors could have a dramatic effect on a student's academic performance. With too many stress factors present and with limited resources of time and energy, a student could easily become overwhelmed. Students are not able to manage their deadlines for submission the time management could be one factor of stress. (Sarvesh S, Preetika S. 2013)

Method: Using the literature some theoretically arrived at constructs were identified. Keeping the underlying theoretical structure in place, these theoretically derived constructs were broken down into statements (referred hereafter as items). These items were measured on a 5 point likert scale.

The questionnaire thus derived was sent by mail to MBA (FT-I) students. The batch size was 184 students. Out of the total mails sent, 84 responses were received. Thus, a response rate of 45% was obtained. This included male (57), female (27).

Table presents details of items and the theoretical constructs which were used as a reference point to arrive at a preliminary pool of items that constructed Students Academic Level Stress (SALS) as questionnaire. 20 items were created from other sources. Items were generated in a way that requires the student assess his/her past present situations in the B school as stressful, and rate them subjectively according to any previous reaction towards that particular event. The wording of the items was refined many times to condense meaning and simplify the language.

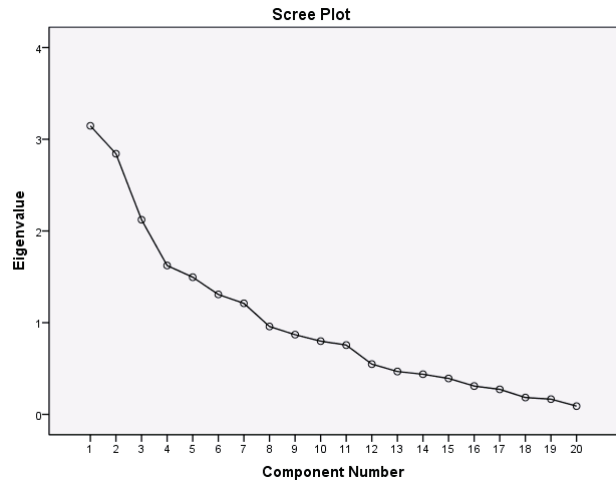
The data thus collected was tested through several statistical techniques to finally reduce the scale and to pin down exact items that will help capture the perception of SALS.

Factor Analysis: Level of agreement of students regarding stressors which affect performance of students.

The Kaiser-Meyer-Olkin Measure of Sampling Adequacy for the various Attributes categories measured is 0.467, which indicates that the scale is appropriate and helps in extracting the factor. The ideal measure for this test is $KMO > 0.50$ and here in

this case KMO is 0.467 which is close to 0.50 and thus it indicates that the variables are measuring a common factor.

KMO and Bartlett's Test		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.467
Bartlett's Test of Sphericity	Approx. Chi-Square	571.896
	df	190
	Sig.	.000



Rotated Component Matrix ^a							
	Component						
	1	2	3	4	5	6	7
During this semester, how often had you been upset because of something that happened unexpectedly?		.524				.598	
During this semester, how often have you felt nervous and stressed?							
During this semester how often you felt overburdened because of submissions and its deadlines?							.828
During this semester, how often have you found that you could not cope with all things that you had to do?	.792						
During this semester, how often have you been able to control irritation in your life?				.842			
During this semester, how often have you been able to control the way you spend your time?		.801					
During this semester, how often have you felt that you were on top of things?						.606	
During this semester, how often have you been angered because of things that happened that been outside of your control?			.816				
During this semester how often you have felt that you were well prepared for class?						.718	
During this semester how often you felt stress of getting required CGPA?							
During this semester how often you felt disturbed because of your grades for class participation?						.539	
During this semester how often you felt stressful because of surprise quizzes?					.835		
During this semester, how often have you dealt successfully with irritating life hassles?		.691					
During this semester, how often have you felt that you were effectively coping with important changes that were occurring in your life?	.597						
During this semester, how often have you felt difficulties were piling up so high that you could not overcome them?							.555
During this semester, how often have you felt confident about your ability to handle personal problems?				.572			
During this semester, how often have you felt that things were going your way?							

During this semester, how often have you found that you could not cope with all things that you had to do?					.759		
During this semester how often you have felt stress because of relative grading?	.752						
During this semester how often you have found course curriculum so heavy for the exam?		-.512	.548				
Extraction Method: Principal Component Analysis. Rotation Method: Varimax with Kaiser Normalization.							
Rotation converged in 19 iterations.							

It is clear from the factor analysis that all the items constructed are a constant source of stress. Excessive homework, assignments, and Prereads (measured through item) mostly increase their work load and thus they are overburdened and hence they faced academic stress. , problems of time management (measured through items), role overload (measured through items) as students have to keep balance between their personal life and their educational performance. Level of Course (measured by item) and Stress is a factor, sometimes students have problems in particular course and they find it difficult. In B schools, students come from the different educational background. Hence, they find few courses above their level of understanding and feel stress. In few B schools there is a practice of continuous evaluation (measured through item) and it creates stress itself. Students have to run for getting good grades, prepare for getting good grades for class

participation too and they have pressure of scoring high grades.

There were few items but it was not loaded when I do the factor analysis like how often you felt stress or getting required CGPA? How often did you feel nervous and stressed?

Conclusion: The final scale includes seven constructs which are constant source of stress (Calderon, Hey, & Seabert, 2001), potential sources of stress include excessive homework, assignments, and Prereads (Kohn & Frazer, 1986), Time Management (Sarvesh S, Preetika S. 2013), Role overload Rakesh Kumar Agarwal and Shailendra Singh Chahar (2007), Level of Course and Stress. (Devadoss & Foltz, 1996), Assessment Related Stressors (Prabhakar.p, Nandamuri and Gowthami 2011), The pressure to earn good grades and to earn a degree is very high (Hirsch & Ellis, 1996).

References:

1. Tanushri Anchan, Santosh Pujar, A Woman in A Man's World: Empowering Women in Law; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 337-339
2. Calderon, K. S., Hey, W., & Seabert, D. (2001). Perceived stress and locus of control differences between employed and non-employed college students: Implications for increasing internal locus of control. Student Affairs Journal Online.
3. Devadoss, S., & Foltz, J. (1996). Evaluation of factors influencing student class attendance and performance [Electronic version]. American Journal of Agricultural Economics, 78, 499-508.
4. Dr. Hari Shankar Panda, Protection of Women and Criminal Law (Amendment) Act; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 314-321
5. Elfering A, Grebner S, Semmer NK, Kaier-Freiburghaus D, Lauper-Del Ponte S, Witschi I (2005). Chronic job stressors and job control: effects on event-related coping success and well-being, J. Occup. Organisational Psychol. (78): 237-52.
6. Dr. M.Rajeswara Rao, Women Empowerment in Smritis; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 340-341
7. Hammer, L. B., Grigsby, T. L., & Woods, S. (1998). The conflicting demands of work, family, and school among students at an urban university [Electronic version]. The Journal of Psychology, 132, 220-227.
8. Hatcher, L., & Prus, J. S. (1991). A measure of academic situational constraints: Out-of-class circumstances that inhibit college student development [Electronic version]. Educational & Psychological Measurement, 51(4), 953-963.
9. Dr.N. Subramanyam, G. Madhu Sri, V.Krishnaprasanna, A Study on Entrepreneurial Activities of Self Help Groups; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 385-390
10. Hatcher, L., & Prus, J. S. (1991). A measure of academic situational constraints: Out-of class circumstances that inhibit college student development [Electronic version]. Educational & Psychological Measurement, 51(4), 953-963.

11. Dasyam Suvarna Kumari, Gender Dimensions on Human Rightswomen's Rights; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 330-333
12. Hisrich, J. &. (1996). Differences in life stress and reasons for living among college suicide ideators and non-Ideators. *College Student Journal* , 30, 377-384.
13. Kelly, W. E., Kelly, K. E., & Clanton, R. C. (2001). The relationship between sleep length and grade-point-average among college students [Electronic version]. *College Student Journal*, 35, 84-88.
14. Kohn, J. &. (1986). An academic stress scale: Identification and rated importance of academic stressors. *Psychological Reports* , 59, 415-426.
15. Lee, M., & Larson, R. (2000). The Korean "Examination Hell": Long hours of studying, distress and depression. *Journal of Youth and Adolescence*, 29, 249-271.
16. M. Ilaya Kanmani Nanmozhi, Dr. Suresh Frederick, Perils of Besiegement: A Study of Social Awakening in; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 299-302
17. Malach-Pines A, Keinan G (2007). Stress and burnout in Israel police officers during Palestinian uprising (intifada), *Int. J. Stress Manage.*, 14: 160-174.
18. Muhammad S. Khan , Sajid Mahmood , Areef Badshah , Syed U. Ali , Yasir Jamal (2006). prevalence of Depression, Anxiety and their associated factors among medical students in Karachi, Pakistan, *J. Pak Assoc. Med* Vol. 56, No. 12.
19. Shraddha Kulkarni, Vidya Gaonkar, Crime Against Women in India: An Awakening Alarm; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 334-336
20. Prabhakar.p, Nandamuri and Gowthami of academic stress - a study on management students.
21. Rakesh Kumar Agarwal & Shailendra Singh Chahar (2007). Examining role stress among technical students in India, *Social Psychology of Education Vol. 10 No.1* pg 77-91.
22. Sarvesh S, Preetika S. , Time management. Vol. V, No. 2, September 2012 - February 2013.
23. Topper EF (2007). Stress in the library workplace, *New Library World*, (11 / 12): 561-564.
24. Kapil Dev, Anjumshaheen, A Spatial and Temporal Analysis of Crime Against of; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 322-329
25. Trockel, M. T., Barnes, M. D., & Egget, D. L. (2000). Health-related variables and academic performance among first-year college students: Implications for sleep and other behaviors [Electronic version]. *Journal of American College Health*, 49, 125-140.
26. Vermunt R, Steensma H (2005). How can justice be used to manage stress in organisations? In J. Greenberg and J.A. Colquitt (Ed.), *Handbook of organizational justice*, 383-410. Mahwah, NJ: Erlbaum.
27. Womble, P. Impact of stress factors on college students academic performance. Available at <http://www.psych.uncc.edu/Womble.pdf>.
28. Wong, P.T.P., & Wong, L.C.J. (Eds.). (2006). *Handbook of multicultural perspectives on stress and coping*. New York, NY: Springer.
29. Dr. Devakumar Jacob, Image of Women in Media today; Human Rights International Research Journal : ISSN 2320-6942 Volume 2 Issue 1 (2014), Pg 308-313

Priyanka B.Dave/ Doctoral Scholar/
Institute of management/ Nirma University/ Ahmedabad/