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Academic Stress:

A Case of the Undergraduate students

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Abstract

This study examined the perceptions of major sources of academic stress among male and female undergraduates. Data were collected via a survey in which participated 100 students, with mean of age (M=23, 21) and standard deviation (SD=3, 27), varied in year in school, age and gender; and the statistical package for social sciences (SPSS) was used for data analysis.

The survey consisted of 33 potential stressful situations, which were divided into 4 categories: Relations with other people sources of stress, personal sources of stress, academic sources of stress, and the environmental sources of stress.

The results show the academic sources of stress appeared to be the most stressful for all the students due to the pressure originated from the course overloads, and the academic evaluation procedures. A variety of personal, familial, and social factors were also identified as least stressful stressors. The first year undergraduates, especially female students reported higher degree of stress than male students did.

The findings from this study may be useful for further research on how these potential sources of stress influence the performance and the health of the students.

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Introduction

In life it is very common to hear about death and taxes in first and second position, and stress comes in the third position of humans' problems (Bernstein, et al, 2008). Stress is part of life no matter how wealthy, powerful, attractive, or happy people might be. However, stress may take different forms depending on the situation. Stress may occur when one is doing a difficult exam, an automobile accident, waiting in a long line, during a day on which everything goes wrong etc...

This paper examines the perception of academic stress among male and female undergraduate students. This study is focused on the exploration of how undergraduate students perceive stress and experience specific stress effects in their studies, in order to foster the development of different kinds of strategies with regard to the management of stressful situations. Academic stress among undergraduate students has become a topic of interest in many European and North American countries. Seven out of ten students in Swedish higher education experienced stress several days a week during the spring. Three out of ten experienced difficulties in sleeping or skipped lunch at least once a week. One out of four of all students had a headache or stomach ache one or several times a week. Generally, it can be said that female students experienced more difficulties than male students (Swedish statistics central office, 2007)

McKean et al. (2000) argue that undergraduate students experience higher stress at predictable times each semester because of the academic commitments, financial pressures, and lack of time management skills. This can affect health, emotional state and academic performance, once stress has become perceived negatively or has become excessive. Hence, it is important that undergraduate students develop effective strategies in order to manage stressful situations.

The purpose of the study

My purpose for conducting this study was to explore the undergraduate students' perception of major sources of academic stress. I wanted to know how students perceive academic stress and how they cope with it on daily basis, as they are struggling to reduce and control the negative effects on their health and their academic performance. In my opinion, it is very important for undergraduate students to learn how to manage the academic stress, even if it cannot be eliminated.

The following research questions were proposed to guide this exploration into the experience of the undergraduate students of Linköping University: 1. which are the main sources to academic stress as perceived by the undergraduate student? 2. Are undergraduate students' perceptions of academic stress influenced by gender and number of years in school? Specifically I expected that there would be differences in academic sources of stress concerning gender and year in school, as reported in previous studies, such as Shirom (1986), Zeidner (1992) and Campbell and Svenson (1992).

Academic stress

Stress and its manifestations, such as anxiety, depression, and burnout, have always been seen as a common problem among people in different professions and occupations. In the last few decades, alarm has already been provoked by the proliferation of books, research reports, popular articles and the growing number of organized workshops, aiming to teach people how to cope with this phenomenon (Keinan & Perlberg 1986).

In contrast, academic stress among university students has become a topic of interest for few researchers to day. Academic commitments, financial pressures, and the lack of time management skills have resulted in many university students experiencing intense stress at predictable times during each semester. University students' health and academic performance can be negatively affected because of higher degree of stress (Campbell & Svenson, 1992). The level of experienced stress is influenced by the resources available for the person in order to deal with specific stressful events and situations (Zeidner, 1992).

Keinan and Perlberg (1986) pointed out that the degree of stress experienced by undergraduate students may differ from non-student peers and from one school year to another. During the first year at the university, undergraduate students have difficulties to assimilate a vast amount of academic material in short period, and they are required to develop effective study techniques and habits in order to cope with the volume of material assigned to them (Campbell & Svenson, 1992). It has been argued that the first exposure of the undergraduate students to the academic studies and to the highly bureaucratic university administrative procedure can also cause stress, because they have to make necessary adjustment to their social environment as well. Some undergraduate students are often stressed because of interpersonal relationships with peer and they experience considerable difficulty when trying to adjust to the university social network (Shirom, 1986).

The adjustment problem may be regarded as a major problem for the undergraduate students. Keinan and Perlberg (1986) argue that the feelings of frustration, anxiety, and depression are among the potential consequences of high degree of stress. Campbell and Svenson(1992) claim that regardless of year of schooling or gender, undergraduate students face a lot of pressure with regards to financial difficulties , excessive class workload, new responsibilities, change in various kind of habits, time management, and finding a potential life partner. Mckean et al. (2000) maintain that stressors alone do not produce anxiety, depression or tensions. Instead, the interaction between stressors and the person's perception and the reaction to these stressors cause stress. Environmental stress occurs as a result of environmental stimuli or demands apprehended by a person that are exceeding his or her ability to deal with them (Shirom, 1986).

Radcliff and Lester's (2003) studies on the perceived stress among final year medical undergraduate students revealed that the most stressful situations for students were the excessive class workload, the socialisation pressure, the lack of guidance, and transition periods of transition. The few studies that specifically relate to the sources of academic stress are rather limited. Zedner's (1992)

studies assessed the perceptions of major sources of academic stress among 184 Jewish and 209 Arab undergraduate students in a major university in Israel. The investigations dealt with socio-cultural and gender group differences. Moreover, the study of Keinan and Perlberg (1986) focused on the sources of stress among university lecturers. However, this study took a specific perspective, which differ from Zeidner (1992), and Perlberg and Keinan (1986), which explored the differences in perceptions of potential sources of stress among undergraduate students (age, school year, faculty and gender).

Definition of stress

Stress is viewed as a negative emotional, cognitive, behavioural and physiological process that occurs as a person tries to adjust to or deal with stressors (Bernstein, et al 2008). Stressors are defined as circumstances that disrupt, or threaten to disrupt, individuals' daily functioning and cause people to make adjustments (Auerbach & Grambling 1998).

Auerbach and Grambling (1998).regard stress as an unpleasant state of emotional and physiological arousal that individuals experience in situations that they perceive as dangerous or threatening to their well-being.

However, stress is perceived in different ways and may mean different thing to different individuals. It is perceived as events or situations that cause individuals to feel tension, pressure, or negative emotions including anxiety and anger. Moreover, other people define stress as the response to existing situations, which includes physiological changes (increased heart rate, and muscle tension), emotional and behavioural changes (Bernstein, et al 2008). Stress is always regarded as a psychological process that involves an individual's personal interpretation and response to any threatening event.

It is important to note that stress can have both positive and negative effects on people. It means that stress may be a normal, adaptive reaction to threat. Its role is to signal and prepare individuals to take defensive action. Take for instance, fear of things that present realistic threats motivates individuals to deal with them or avoid them. Most psychologists assert that moderate stress motives individuals to achieve and fuels creativity, although stress may hinder individuals from performance on difficult tasks (Auerbach & Grambling 1998).

Auerbach and Grambling (1998) argue that stress can leads to serious problems if it is not managed effectively. Moreover, when a person is exposed to chronic stress, she or he is likely to experience both physical illness (including heart disease), and mental illness (e.g., anxiety disorders). The field of Health Psychology focuses in part, on how stress affects bodily functioning and on how people can use stress management techniques to prevent or minimize disease (Grambling and Auerbach 1998).

The Transactional Model of stress

The Transactional Model of stress is a model of psychological processes involved in stress, which was developed by Lazarus and Folkman (1984). In this model, stress is perceived as an individual's cognitive interpretation of potentially

stressful events. The emphasis here lies more on how the events are perceived rather than the objective events themselves.

It has been argued that stress is neither an environmental stimulus nor a psychological response; rather it is a relationship between environmental demands and the ability to deal with them. Because stress is usually perceived as a transaction between individual and environment, there are two important processes that constitute this transaction the psychological appraisal and coping respectively. The psychological appraisal is viewed as the individuals' constant assessment of the situation and the resources available in order to deal with it (Lazarus and Folkman, 1984). However, when individuals encounter a potentially stressful situation, they appraise the amount of potential danger as well as their resources for dealing with the danger. Moreover, individuals experience stress when the perceived threat exceeds perceived available resources for coping with it. Lazarus (1978) regards coping as individuals' cognitive and behavioural efforts, which they use to deal with a stressful situation.

According to Lazarus and Folkman (1984), stress is a dynamic process involving individuals and environment. However, the environment provides the initial stimulus, but the key determinants of stress are the way individuals perceive the environment and how they use the coping resources available to deal with it.

This approach is appropriate to this study, because the dynamic relationship between the person and the environment in stress perception and reaction is especially magnified in the first year undergraduate students (Lazarus & Folkman 1984). However, the problems and situations encountered by the first year undergraduate students may differ from those faced by their no students' peers or those in the final year (Lazarus & Folkman 1984).

Sources of stress

Bernstein et al. (2008) define the sources of stress as every circumstance or event that threatens to disrupt people's daily functioning and causes them to make adjustments. These sources of stress are called "Stressors" (p.519).

Stressors are demands made by the internal or external environment that upset balance, thus affecting physical and psychological well-being and requiring action to restore balance (Lazarus & Cohen, 1977). However, they differ from the degree of severity and duration of stress; what is stressful for an individual may not be a stressor for another.

For example, missing some lectures may be stressful for the first year undergraduate students, but may not be stressful for another student depending on his or her degree of expectations. Taking his final exam or sitting in rush hour traffic is not equivalent to being attacked by an angry Lion, where high arousal could facilitate fighting or fleeing. Catastrophic events, major life changes, and daily hassles are regarded as major categories of stressors that create demands to which people must adjust.

Auerbach and Gramling (1998) view catastrophes as an unexpected life-threatening calamity or disaster that cause individuals to be unable to cope with it. For instance, wars, floods, hurricanes, fires, earthquakes, sexual assaults and tornadoes are common catastrophes. Major life changes (e.g., losing a job, divorce, illness, death of a spouse or family member, and imprisonment) can be

regarded as stressful situations for every adult. Most stress people experience in their everyday lives is caused by daily hassles (p.2).

Daily hassles can also be viewed as the irritations, pressures, and annoyances that might not be significant stressors by themselves but whose cumulative effects can be significant. This can be related to individuals' jobs, every day living circumstances and personal relationships (Bernstein et al., 2008).

Effects of stress

It has been argued that an individual can have possibly anxious thoughts, difficulty to concentrate or remember because of being stressed. Stress can lead also to change in people's behaviours, such as nail biting, heavy breathing, teeth clenching and hand wringing. When people are stressed, they may feel cold hands and feet, butterflies in stomach, and sometimes-increased heart rate, which all are regarded as common physiological effects of stress, which can be connected to emotion of anxiety (Auerbach & Gramling, 1998).

Physical and psychological responses to stress generally occur together, principally when stressors become more intense. However, one category of stress responses can influence other responses. For instance, mild chest pain may lead to the psychological stress response of worrying about getting a heart attack. Physical responses can be when a person escapes from a terrible accident or some other frightening events, he or she will experience rapid breathing, increased heart beating, sweating, and even shaking little later. These reactions are part of a general pattern known as the fight-or-flight syndrome. The psychological responses to stress can appear as changes in emotions, thoughts (cognition), and behaviours (Bernstein et al., 2008).

Coping with stress

Stress does not affect all people equally, but stress can lead to illness and negative experiences. Coping with stress is therefore an important factor, it affects whether and how people search for medical care and social support and how they believe the advice of the professionals (Passer & Smith 2007).

The transactional model of Stress and coping (Lazarus & Cohen, 1977), is an approach for evaluating the coping processes of stressful situations. Stressful situations are viewed as the transactions between an individual and the environment. However, the external stressors play an important role in these transactions. Two important types of appraisal characterize these transactions: appraisal of the stressor by the person, and appraisal of the stressor in terms of social and cultural resources available to the person.

The first appraisal known also as primary appraisal is resulting from a person examining or appraising the potential threat when facing a stressor. The primary appraisal is described as an individual evaluation of major effects of an event, as stressful, positive, controllable, and challenging or irrelevant. The second appraisal is the assessment of the available resources and options available to a person in order to copy with the actual stressor. It is an appropriate action taking by a person to find a solution (Cohen, 1984).

METHOD

Material

Since the major objective in this study is to identify and examine the main sources of academic stress, which can possibly have important effects on the performance and the health of the undergraduate students, it was necessary to formulate a questionnaire that would adequately take in account undergraduate students social, economical, environmental, and studies related sources of stress. The questionnaire of the survey in this study elaborated four categories of major sources of stress that are relevant to the potential stressful experiences of undergraduate students (see appendix 1.1).

The questionnaire consisted of 33 items that were divided into four categories of potential sources of stress including the sources related to the undergraduate students' interactions with others, internal factors, academic factors, and environmental factors (see appendix 1.1).

However, among the 33 main items of the questionnaire, seven items were representing interactions with others, ten items represented (intrapersonal) internal sources, nine items represented academic sources of stress, and seven items environmental sources of stress.

The category interactions with other people are the sources of stress resulting from the undergraduate students' relationship with their colleagues, friends, roommates, parents and neighbours. Such sources of stress are a dispute with a girlfriend or boyfriend, having disagreements with parents or roommates.

Internal sources of stress result from what causes stress within the person herself or himself, such as changes in sleeping habits, eating habits, or sexual habits. The factor academic sources of stress result from problems related to studies, such as excessive class work (assignments), hard exams, or difficulties to obtain good grades.

The environmental sources of stress are related to living in a new city, computer problems, and poor conditions of living(see appendix 1.1).

However, the respondents evaluated the degree of personal stressfulness of each of the 33 items on a 6-points Likert-type scale (1= not all stressful, 5=extremely stressful and 6= don't know(missing value)).

Participants

When carrying out an empirical investigation it is always necessary to define the target population, which characterizes the sum of all units of analysis. In this study, the target population is defined as male and female undergraduate students, regular and registered at Linköping University. However, the complete data is generally collected when the number of units is small or when the total population is heterogeneous in relation to its most relevant characteristics (Breakwell et al., 2000).

In order to enter the undergraduate's world and understand their perspectives on stress and stressful experiences, 100 undergraduate students participated in this study through a survey, including 79 women and 21 men with the average age of 23, 21 year. The youngest among the undergraduates was a 20 years old female student, who was in year one, teaching program. Meanwhile the oldest was a 36 years male student who was in year three of engineering. The fields of interest on this study are mainly focused on the undergraduate students from natural sciences, humanities and social sciences, and technical sciences. This survey was conducted only at Linköping University campus.

Procedure

When my questionnaire was ready for the survey, I took contact with some course administrators and lecturers in order to be allowed to conduct the survey with the target category of students a few minutes after the lectures. I introduced briefly the topic and the purpose of the research to them, and then I start distributing the questionnaire to the students who accepted to participate in the survey. In case of the students I meet in the campus coffee rooms during their breaks, I tried always to describe quickly the topic and the goal of the survey before giving them the questionnaires. This reduced the refusal rate and prepared them to the active participation in the survey. In addition, it was surprising that undergraduate students who were certainly very busy actively participated in the survey and were very open when responding to the questions related the potential sources of stress.

In the turn of the investigation, a total of 79 female and 21 male students participated in the survey. This started on April 10th and ended on 18th, 2008, and lasted between 20 to 40 minutes per individual.

Statistical methods

The results were analysed by means of Analysis of Variance(ANOVA). Statistically significant effects were further scrutinised by means of the Fisher LSD procedure (Winer , Brown & Michels, 1991).

RESULTS

In this study, data were analyzed using the Statistical Package for Social Sciences (SPSS).

The sample comprised 100 undergraduate students with mean age 23, 21 years (SD= 3,217). Respondents were principally Swedish, with more female than male students. Moreover, first year undergraduates comprised the majority of respondents.

Table 1 presents the means and the standard deviations for all potential sources of stress distributed by gender; Table 2 presents the overall of the means and standard deviations from both male and female students; and Table 3 represents the means and standard deviations for the four categories of stressors by grades(Years in school).

Table 1 contains 33 sources of stress divided into four categories, which are: 1) relations with other people, 2) personal factors, 3) academic factors, and 4) environment factors.

The results were analysed by means of a 2x3x4(sex by grade by stressor) ANOVA. The result of this ANOVA yielded a significant effect of stressor; $F(3,92)=10,49$, $p<0,01$. No other main or interaction effects were statically significant, although sex [$F(1,94)= 3,05$]and grade [$F(2,94)= 2,51$]yielded p-values smaller than 0,10.

Relations with other people - Female students reported higher ratings (M=3,73) due to fight with boyfriend/ girlfriend compared to their male colleagues' mean (M=3, 00). However, male students low mean (2,56) due to roommate factors, and female students scored a low mean (M=2,71) due to change in relation with others (Table 1).

Personal factors - Female undergraduate reported a relatively higher mean (M=3,75) than their male counterparts' mean (M=3,57) due to pressure from self-imposed expectations. However, change in sexual habits has been reported to be occasionally for both male students (M=2,34) and female students (M=2,34) (Table 1).

Academic factors - The increased class workload scored higher mean for female students (M=3, 92), as well as for male students (M=3,69), although female students reported to be relatively higher stressed than their male colleagues. In this category, language difficulties factors appeared to be less stressful for female students (M=2, 53), and many essays factor for male students (M=2,38) (Table 1).

Environmental factors - Lack of vacations/breaks scored higher mean for female students (M=3,27), compared to the male students (M=3,00) due to being placed in an unfamiliar situations. However, for male students, divorce between parents scored low mean (M=2,46), and for the female students, computer problems scored low level of mean (M=2,46) (Table 1).

Table 1: Descriptive Statistics of the stressors of the undergraduate students by gender

Categories of stressors	Sex			
	Men		Women	
	Mean	Std. Deviation	Mean	Std. Deviation
A. Relations with other people				
1. Change in relation with others	2,76	1,03	2,71	1,01
2. Room mate conflict	2,56	1,13	2,80	1,10
3. Work with people you don't know	2,69	1,30	2,88	,886
4. Fight with boyfriend/ Girlfriend	3,00	1,34	3,73	,963
5. New boy friend/ girlfriend	3,00	1,29	3,51	1,10
6. Family problem	2,76	1,30	3,41	1,22
7. Frustration due to misunderstandings	2,94	1,26	3,13	1,06
B. Personal factors				
8. Change in sleeping habits	3,45	1,20	3,41	1,13
9. Change in eating habits	3,06	1,17	3,14	1,15
10. Change in sexual habits	2,34	1,09	2,39	1,17
11. Financial difficulties	3,57	1,09	3,52	1,22
12. Combining job with studies	3,30	1,23	3,26	1,25
13. Change in using alcohol	3,03	1,40	2,59	1,35
14. Health problems	2,96	1,40	3,17	1,29
15. Pressure	3,75	1,09	3,75	1,13
16. Lack of social contacts	2,84	1,27	3,12	1,32
17. New responsibilities	3,27	1,17	3,09	1,18
C. Academic factors				
18. Increased class workload	3,69	1,21	3,92	1,03
19. Lower grade	3,54	1,39	3,43	1,15
20. Many hours of studies	3,18	1,33	3,80	3,81
21. Language difficulties	2,69	1,33	2,53	1,35
22. Lack of university support	2,78	1,16	3,31	6,59
23. Examinations	3,09	1,28	3,40	4,01
24. Many essays	2,38	1,25	3,03	4,26
25. Staying late writing paper	2,87	1,26	3,37	3,68
26. Missing some lecturers	2,75	1,17	3,45	1,25
D. Environmental factors				
27. Lack of vacations/ Breaks	2,63	1,22	3,27	1,33
28. Computer problems	2,45	1,22	2,46	1,17
29. Bad living conditions	2,72	1,25	2,76	1,33
30. Quit job	2,72	1,03	2,93	1,20
31. Divorce between parents	2,46	1,36	2,57	1,47
32. Placed in unfamiliar situations	3,00	1,29	2,75	,99
33. Moving to a new city	2,48	1,32	2,56	1,18

The difference between male and female undergraduates was not statistically significant. The undergraduate students experienced highest stress levels due to the increased class workload, followed by the pressure and having many hours of studies, and the financial difficulties; and occasionally stressed the computer problems factors (Table 1).

However, there is no gender difference in the perception of stress for all the 33 stressors. The gender difference exists only with regard to a handful stressor. Female students appeared to experience higher degree of stress than their male peers due to the increased class work overload, having many hours of studies, pressure, and financial difficulties, fighting with a boyfriend/ girlfriend, lack of social support, lack of university support, missing some lectures, lack of vacations or breaks and health problems (Table 1; all p-values<.05).

In contrast, the only area in which males students in nominal terms experienced relatively higher stress than their female students counterparts, is the change in using alcohol, and when placed in unfamiliar situations. However, both male and female undergraduate students experienced the same degree of stress occasionally due to change in sexual habits, change in sleeping habits.

Table 2: Overall of mean and standard deviation from both male and female students

Categories of stressors	Mean	Std. Deviation
Relations	3,12	,64
Personal	3,19	,67
Academic	3,26	1,39
Environment	2,77	,79

The difference between the four categories of stressors is statistically significant, across male and female students, according to a simple effects analysis: $F(3,297) = 7,66$; $p < .01$. The academic sources of stress (increased class workload) were the most stressful stressors for both male and female undergraduate students ($t [99] = 3,71$), followed by the personal sources of stress and the relation with other people sources of stress. Meanwhile, the environmental sources of stress (the computer problems) received lower ratings. (Table 1). The LSD Post-hoc comparisons revealed that environmental sources presented lower ratings than the other categories (all p-values < .01).

Table 3: Descriptive Statistics of Stressors of both male and female undergraduate students by grade (Year in school)

Categories of stressors	Grade					
	one		two		three	
	Mean	Std. Dev	Mean	Std. Dev.	Mean	Std. Dev.
Relations with other people	3,21	,57	2,99	,81	2,97	,61
Personal factors	3,25	,71	3,20	,65	3,05	,59
Academic factors	3,45	1,69	3,03	,82	2,96	,70
Environmental factors	2,89	,71	2,63	,99	2,58	,79

The difference between the three grades was marginally statistically significant, according to a two-way Analysis of Variance (ANOVA): $F(2,97) = 2.52$; $p < 0,10$. The Grade by Stressors interaction was not significant ($F < 1$); similar to the previous ANOVA, the Stressors factor was significant ($p < 0.01$).

The grade one students experience higher level of stress for both male and female students $t(99) = 3,20$, followed by the grade two students. The LSD post hoc comparison revealed that grade 3 students scored lower ratings than grade one and two (all p -values $< 0,01$).

The academic stressors reported to be the most stressful for the first grade ($M=3,28$) than grade two ($M=3,03$) and three ($M=2,96$). Meanwhile, the personal sources of stress were reported to be more stressful for grade two ($M=3,13$) and grade three ($M=3,15$). Moreover, the environmental stressors were also identified as the less stressful sources of stress for both grades. The findings showed that the first year undergraduate students reported the highest degree of academic stress, due to change in eating habits, sleeping habits, sexual habits, use of alcohol habits, conflict with a boyfriend or girlfriend, roommate, financial difficulties, the increased class work over load, the lack of strong support networks and the frustrations due to some misunderstandings (Table 1). By contrast, the second year undergraduate students reported to experience occasionally low levels of academic stress.

DISCUSSION

The major purpose of this study was to explore the perceptions of the major sources of stress among undergraduates during their studies. Interestingly, the undergraduate students who participated in this research were willing to discuss openly their perceptions of potential sources of academic stress. These characteristics enhanced the internal validity of the findings.

The sample consisted principally of the students of natural sciences, engineering, social sciences, and humanities. In contrast, students of medicine that were not included in the sample may experience qualitatively different sources of academic stress than the students in the previously mentioned disciplines. Moreover, the research was conducted at a university characterized by the relative absence of a residential campus. Considering these restrictions, the findings show that the undergraduate students' perceptions of the sources of the academic stress varied in relation with their gender, and year in school as expected, thus giving support to my two research questions. The increased class workloads, getting low grade, the pressure, many hours of studies, the financial difficulties, major live changes, and fight with boyfriend or girlfriend are particularly strong stressors for both male and female students, from grade one to three.

The first year undergraduate students were reporting higher levels of academic stress, due to major live changes and various types of academic and non-academic conflicts related to adaptation, and the lack of a strong social support networks. At the same time, the second year students reported low levels of stress, due to the adaptation to new responsibilities, and changes, and getting access to academic social support network. The gender difference among the first year students is important, even if it is not statistically significant. This is because women in these categories have the highest levels of stress compared to their male peers. Moreover, the findings showed that within the university population, the first year students and the third year students had relatively higher mean levels of academic stress, than the second year students did. Despite the support given to the first year students by the university, they reported higher stress. The gender difference related to the various stressors among the undergraduate students supported the research questions and confirmed the results of others studies. It has been agreed that observing sex differences in academic stress may reflect different ways of coping with stress by gender. Even thus, it appears that male undergraduates are likely to experience the same amount of stress as their female counterparts, they may not like to show it, because they have been taught that accepting being stressed express a feminine trait, which should not be exposed. Moreover, because female students naturally appear to be less defensive than their male peers, lead those to admit willingly that they are stressed (Zeidner, 1992).

However, the findings are in agreement with previous study regarding stress. Consequently, they are consistent with the studies of Shirom(1986), which he conducted for the Israeli undergraduate science students, demonstrating that examination related stresses and excessive assignment, that required a lo of

readings, writing and deadline for term paper submission, are the most stressful sources of stress.

In the same way, these findings support those reported by Clift and Thomas (1983) that end-of-semester exams, excessive assignment work loads were identified as major sources of academic stress.

Curiously, Zeidner (1992) claims that stress is a common phenomenon, however, students and lecturers, and researchers are occasionally stressed due the temporarily academic overload conditions. The findings also interestingly support the conceptual definition of stress (Lazarus 1966), an individual's perception of the environmental demand, dealt with by an individual, which is extended beyond an individual's adaptive resources.

Limitations of the study

Since this study explores the perceptions of major sources of stress among undergraduate students, the first limitation was the time restriction in order to reach the target population, which could be appropriately representative. Besides, the size of the sample was relatively small and the number of students that participated in the survey was limited.

Another aspect is the limitations related to accuracy of the 33 potential sources of stress used in the questionnaire. Besides this, it was not possible to establish the effects of stress on the undergraduate students' academic performance and health, based of the questionnaire and the findings of the study.

However, from the methodological point of view, it should be noted that the undergraduate students were not randomly selected from the undergraduate community and may not be representative of the Linköping university undergraduate students in general.

CONCLUSION

Since the major purpose of this study was to examine potential sources of academic stress, as the undergraduates perceive them, the results have reflected and confirmed my predictions and my research questions.

The data showing the consistent gender differences in both grades support research question 2 and are in agreement with some previous research that claimed that female students tended to perceive various types of stressors as more distressing than male students (Zeidner, 1992). In addition, the consistent of gender differences in both first, second and third grade students demonstrates that the initial encounter with the academic experience may have been more stressful to first year female students across various disciplines. Female's students are nevertheless reported to be more stressed by both academic and non-academic factors.

However, undergraduates appeared to be mostly stressed by pressure originating from course overload and academic evaluation procedures and least stressed by a variety of personal, familial, and social factors.

The findings have also reported that the first year students experience higher degree of academic stress due to studies related factors such as, many new challenging and potentially threatening situational demands, which required considerable adjustment and new experiences.

The findings showed that female undergraduates reported higher degree of stress due to studies related sources of stress, such as the increased class workloads, the pressure to earning good grades, excessive homework, and unclear assignments, compared to their male counterparts. The first grade students reported higher degree of stress than second and third grade due to studies related stressors. In particular, first grade female students scored higher degree of stress than their male colleagues did.

Consequently, there is no difference in the perceptions of stress for both male and female undergraduates. The all-33 stressors were perceived as stressful by both male and female undergraduates, although the difference exists in terms of the degree of stress experienced by male and female students.

However, it will be interesting to explore in the future research, how these sources of academic stress may influence the performance and the health of the undergraduate students, and the consequences of stress may be dependent upon its sources and severity. Secondly, it is important to organize some workshops at the beginning of each semester for the undergraduate students, especially those in the first year. In these workshops, they will learn how to cope with these the academic stress, how to manage it, and to learn some effective time management and adapted study techniques in order to be able to reduce the negative effects of the academic stress on their health and performance. As Moore et al (1992) claim that regardless of gender, a moderate level of stress motives students to increase their academic performance during studies.

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APPENDIX

I. INTERVIEWS

1.1. The questionnaire of the survey

Interview guide of the survey on academic stress

Questionnaire No: _____

Age: _____

Sex_____

Faculty_____

Year_____

This survey is going to be use for the elaboration of my research project in Psychology 3.
 Please kindly reply to the following questions:
 During your studies you may some how experience stress.
 How would you rate these **sources of stress** that may cause stressful situations at any time during your studies? **What do you think is causing stress during your studies?**

Strongly disagree: 1 to 2 agree: 3 strongly agree: 4 to 5 don't know:6

A. RELATING TO OTHER PEOPLE

1. Change in relation with others	1	2	3	4	5	6
2. Room mate conflict	1	2	3	4	5	6
3. Work with people you don't know	1	2	3	4	5	6
4. Fight with boyfriend/ Girlfriend	1	2	3	4	5	6
5. New boy friend/ girlfriend	1	2	3	4	5	6
6. Family problem	1	2	3	4	5	6
7. Frustration due to misunderstandings	1	2	3	4	5	6

B. PERSONAL FACTORS

8. Change in sleeping habits	1	2	3	4	5	6
9. Change in eating habits	1	2	3	4	5	6
10. Change in sexual habits	1	2	3	4	5	6
11. Financial difficulties	1	2	3	4	5	6
12. Combining job with studies	1	2	3	4	5	6
13. Change in using alcohol	1	2	3	4	5	6
14. Health problems	1	2	3	4	5	6

15. Pressure	1	2	3	4	5	6
16. Lack of social contacts	1	2	3	4	5	6
17. New responsibilities	1	2	3	4	5	6

C. ACADEMIC FACTORS

18. Increased class workload	1	2	3	4	5	6
19. Lower grade	1	2	3	4	5	6
20. Many hours of studies	1	2	3	4	5	6
21. Language difficulties	1	2	3	4	5	6
22. Lack of university support	1	2	3	4	5	6
23. Examinations	1	2	3	4	5	6
24. Many essays	1	2	3	4	5	6
25. Staying late writing paper	1	2	3	4	5	6
26. Missing some lecturers	1	2	3	4	5	6

D. ENVIRONMENTS FACTORS

27. Lack of vacations/ Breaks	1	2	3	4	5	6
28. Computer problems	1	2	3	4	5	6
29. Bad living conditions	1	2	3	4	5	6
30. Quit job	1	2	3	4	5	6
31. Divorce between parents	1	2	3	4	5	6
32. Placed in unfamiliar situations	1	2	3	4	5	6
33. Moving to a new city	1	2	3	4	5	6

Thanks for your participation!

1.2. The Swedish version of the survey

Enkäten om "Akademisk Stress"

i. Enkät No:.....

ii. Ålder:..... Kön:.....

iii. Fakultet:..... Institution:..... Program.....

iv. Årskurs:..... Termin.....

Denna enkät ingår som material i min C-uppsats i Psykologi.

Frågor och Svarsalternativ

Enkäten består i huvudsak av frågor med fast svarsalternativ. Om inget annat anges vid frågan skall du besvara den genom att markera ett svarsalternativ. Välj det svarsalternativ som ligger närmast din egen uppfattning genom att markera i lämplig ruta.

Var vänliga att besvara följande frågor. Studierna kan upplevas som stressande. Hur skulle du gradera följande faktorer med avseende på hur stressig du upplever din studiesituation? Vad tror du orsakar stress under dina studier?

Instämmer inte alls :1-2 Instämmer:3 Instämmer helt: 4-5 vet ej:6

A. Relation med andra

1. Förändring i relation till varandra	1	2	3	4	5	6
2. Konflikt med de du bor tillsammans med	1	2	3	4	5	6
3. Arbeta med människor du inte känner	1	2	3	4	5	6
4. Problem i relationen/pojkvän/flickvän	1	2	3	4	5	6
5. Ny pojkvän/flickvän	1	2	3	4	5	6
6. Problem i familjen	1	2	3	4	5	6
7. Frustration över missförstånd	1	2	3	4	5	6
	1	2	3	4	5	6

B. Personligafaktorer

8. Förändrande sovvanor	1	2	3	4	5	6
9. Förändrande matvanor	1	2	3	4	5	6
10. Förändrande sexualvanor	1	2	3	4	5	6
11. Ekonomiska problem	1	2	3	4	5	6
12. Att kombinera jobb med studier	1	2	3	4	5	6
13. Förändrande alkoholvanor	1	2	3	4	5	6
14. problem med hälsan	1	2	3	4	5	6
15. Krav/ förväntningar	1	2	3	4	5	6
16. Brist på socialt umgänge	1	2	3	4	5	6
17. Nya ansvarsområden i vardagen	1	2	3	4	5	6

C. Studierelaterade faktorer

18. Ökad arbetsbörda	1	2	3	4	5	6
19. Höga krav för godkänt	1	2	3	4	5	6
20. många studietimmar	1	2	3	4	5	6
21. Språksvårigheter	1	2	3	4	5	6
22. Brist på stöd från universitet	1	2	3	4	5	6
23. Examinationsformer	1	2	3	4	5	6
24. Mycket examinationer i essäform	1	2	3	4	5	6

25. Mycket studier på sena kvällar/ nätter	1	2	3	4	5	6
26. Missade föreläsningar/ lektioner	1	2	3	4	5	6

D. Fysiskarbetsmiljö

27. För få lov dagar	1	2	3	4	5	6
28. Relaterade till datorer	1	2	3	4	5	6
29. Dåliga levnadsvillkor	1	2	3	4	5	6
30. Förändrande studiemiljö (Gymnasium-Universitet)	1	2	3	4	5	6
31. Förändringar i föräldrahemssituation (Flytt eller skilsmässa)	1	2	3	4	5	6
32. Befinna sig i ovana situationer	1	2	3	4	5	6
33. Ny stad	1	2	3	4	5	6

Tack för din medverkan!