

A cross-cultural study on the relationship between academic stress, social anxiety and subjective well-being

Abstract

Do students with higher academic stress experience less psychological well-being? We performed an explorative, cross-cultural study on Iranian (n = 100) and Swedish (n = 105) students to investigate the relationship between academic stress, social anxiety and subjective well-being. Results showed that higher academic stress was related to less subjective well-being and more social anxiety. Results also showed that Iranian students experienced less academic stress, less subjective well-being and more social anxiety than Swedish students. It seems motivated to try to decrease academic stress in favor for higher subjective well-being and more stable mood. Other influencing factors on subjective well-being, such as student role, stress coping ability and social skills are discussed.

Keywords. Stress, well being, social anxiety, cross cultural differences, life satisfaction, academic performance

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Psychology C
Spring Term 2009
Örebro University

En korskulturell studie om sambandet mellan akademisk stress, social ångest och subjektivt
välbefinnande

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Sammanfattning

Upplever studenter med högre akademisk stress ett lägre subjektivt välbefinnande? Vi utförde en explorativ, korskulturell studie på Iranska (n = 100) och Svenska (n = 105) studenter för att undersöka sambandet mellan akademisk stress, social ångest och subjektivt välbefinnande. Resultaten indikerade att högre akademisk stress var relaterat med lägre subjektivt välbefinnande och högre social ångest. Resultaten indikerade även att Iranska studenter upplevde lägre akademisk stress, lägre subjektivt välbefinnande och högre social ångest än Svenska studenter. Det verkar motiverat att försöka minska studenters akademiska stress till fördel av ett högre subjektivt välbefinnande och mer stabilt humör. Individuella och kulturella faktorer som kan påverka subjektivt välbefinnande, som exempelvis studentroller, stresshantering och sociala färdigheter diskuteras.

Nyckelord. Stress, välbefinnande, social ångest, korskulturella skillnader, akademisk prestation

Psykologi C, VT 2009.Handledare: Reza Kormi-Nouri

A cross-cultural study on the relationship between academic stress, social anxiety and subjective well-being

Most people agree that subjective well-being is something important. The higher we rate our psychological well-being, the better. A large number of factors influence subjective well-being. Two such factors could be academic stress and social anxiety.

This exploratory study will examine the relationship between academic stress, social anxiety and subjective well-being, with a cross-cultural twist to see if there are any cultural differences between the students of Tarbiat Moallem University in Iran and the students of Örebro University in Sweden. We will measure academic stress levels, levels of positive and negative emotions, levels of life satisfaction and levels of social anxiety to find clues how these levels, or variables, relate to each other. Knowing this is important for the search of individual and cultural traits that have key roles in subjective well-being to a student.

Subjective Well-Being

Positive Psychology has emerged the last decades, focusing on health instead of illness (Seligman & Csikszentmihalyi, 2000). The philosophical idea of quality of life or subjective well-being has its roots from ancient Greece where Aristotle shared his ideas of “the good life” as having “good character”, which can be translated as a set of positive human traits (Aristotle, 2000). In modern days it has become more and more urgent not only to define “illness” but also to define “health” and psychological well-being, as well as explaining what makes people feel well (Seligman & Csikszentmihalyi, 2000). This study also focuses on well-being, or more specifically: the student’s well-being.

There are two ways to measure subjective well-being: by objective criteria or by subjective evaluation. Both measurements have strengths and weaknesses. One of the major strength with objective criteria is that the criteria are the same throughout the population, for

example, heart rate, breathing intensity or divorce rate. One of the major weaknesses with objective criteria is that they do not have to reflect the individual's psychological well-being, but rather an observer's estimate of criterion improvement (Brissette, Leventhal, & Leventhal, 2003). For example, two individuals with the same high heart rates can differ in happiness or stress. The major strength of subjective evaluation is that psychological states and phenomenon's can be expressed by the subject. On the other hand, the weakness of this method is that two same scores can mean totally different things. For example, two individuals who answer that they are "extremely stressed" about something, might differ in actual stress level. One person might climb on the walls from extreme stress, while the other looks at the clock out of boredom. In this study we use subjective evaluation, because we are interested in the psychological states, rather than the physical states. To measure subjective well-being we will use the "Satisfaction With Life Scale" (Diener, Emmons, Larsen, & Griffin, 1985).

This study will also use the Positive and Negative Affection Scale as a measure of mood tendency. A dominant theory in positive psychology is that positive affection should have a larger influence on subjective well-being than negative affection, because of the focus on the positive side of psychology (Seligman, Parks, & Steen, 2005) which Kuppens, Realo and Diener's study supports by showing that the experience of positive emotions was more strongly related to life satisfaction than the absence of negative emotions (Kuppens, Realo, & Diener, 2008). The Positive and Negative Affection Scale will serve as a complement to the life satisfaction scale in this study, to see if mood is more affected than life satisfaction, by academic stress and social anxiety.

Academic Stress and Social Anxiety

Stress is a major research topic in health psychology, with 70940 hits when searching for “stress” as a descriptor in database PsychINFO. High stress has a negative relationship with mental health among young adults (Bovier, Chamot, & Perneger, 2004) and that is why this study is interested to examine if there is also a negative relationship between *academic* stress and subjective well-being. Previous research has focused on the relationship between stress and academic performance, showing a negative relationship between the two variables (Stewart et. al., 1999). It seems that academic self-efficacy is a better predictor than stress, when it comes to academic success (Zajacova, Lynch, & Espenshade, 2005). However, it is documented that stress, especially in combination with bad coping skills, is related to poorer academic achievement (Vaez & Laflamme, 2008).

Another factor that could be related with academic stress and subjective well-being is social anxiety, or social skills. Curiously, in previous research, social anxiety has shown *not* to be a predictor of academic success (Strahan, 2003).

Cultural Differences Between Iran and Sweden

Cultural differences are defined with measurable variables that could explain variances in results, for example the variance in academic stress or social anxiety. This study will use two such cultural definitions: levels of individualism and levels of self-expression.

Swedish culture is individualistic and Iranian culture is collectivistic. This assumption is based on the theory that Swedish culture focuses more on “self-fulfilling values”, such as individual goals or career goals, rather than on the “collective values”, like the family or neighborhood. There is an index on individualism created by Hofstede (2001) that supports this theory. Sweden, or any other Scandinavian countries, was unfortunately not included in this index. Instead we compared Iran with Switzerland, arguing that Switzerland is a neutral

and liberal country like Sweden. In the index Iran scored 41 out of 100 on an individualism scale, while Switzerland scored 68 out of 100 (Hofstede, 2001), which indicates that Switzerland, and Sweden if the comparison is valid, has a higher level of individualism than Iran. Another cultural difference in levels of individualism is that Iranian mail addresses has a “country-down” hierarchy, with the country on the first row, while Swedish mail addresses has an “individual-down” hierarchy, with the name on the first row.

Swedish culture is more focused on self-expression and Iranian culture is more focused on survival. This assumption is based on the theory that the Swedish culture has better overall health and can focus more on self-expression, such as political activity, rather than focusing on survival and community development. There is an index on self-expression/survival by Inglehart & Baker (2000) that supports this theory. In this index Iran scored -0,33, while Switzerland scored 1,42 (Inglehart & Baker, 2000), which indicates that Switzerland, and Sweden if the comparison is valid, has a higher level of self-expression than Iran.

Research Questions

1. What is the relationship between academic stress and subjective well-being?

The relationship between academic stress and subjective well-being has been sparsely researched. To this date, no single scientifically published study has explicitly examined the relationship between *academic* stress and subjective well-being. However, Bernadette Peters has found (Peters, 2008) a significant negative relationship between stress and quality of life in her study about stress in doctoral students. Another ambitious study done by Henry Chow (Chow, 2007) revealed that sex, educational aspirations, hours spent on studying, father's education, physical health, financial stress, and stress due to balancing work, school, and social life were found to be significantly related to academic performance, and that academic stress were significantly related to psychological well-being. Our study will investigate the

relationship between academic stress and subjective well-being in more detail, by comparing academic stress to both life satisfaction and positive and negative affection.

2. *What is the relationship between academic stress and social anxiety?*

A study on Singapore students showed a positive relationship between personal concern and academic stress, but not between family, peer and school concern and academic stress (Vivien, Lay See, Ang, & Wan Har, 2008). This indicates that personal concern and anxiety are related with academic stress, and. Although social anxiety is not significantly related with school dropouts or academic success (Strahan, 2003) we are interested to see if social anxiety is related with academic stress.

3. *What is the relationship between social anxiety and subjective well-being?*

Previous research has focused on the relationship between social anxiety and the quality of life in patients with social anxiety disorder. Findings indicate that people who suffer from social anxiety disorder do experience less quality of life in comparison with people without social anxiety disorder (Norberg, Diefenbach, & Tolin, 2008). We want to examine the relationship between social anxiety and subjective well-being in university students to see how big impact social anxiety has on the well-being of a student.

4. *Is there a difference between Iranian and Swedish students in academic stress?*

Previous research about cultural differences in academic stress, comparing American and Asian students, has been mixed. One study that compared American with International students showed higher self-imposed stress in American students (Misra & Castillo, 2004). Another study that compared American Hispanic with Singapore Chinese adolescents showed higher academic stress among Singapore Chinese adolescents (Ang, Huan, & Braman, 2007).

We will also look at sex differences, differences between course and program students and differences between students who work and do not work, to highlight individual differences as well as cultural.

5. *Is there a difference between Iranian and Swedish students in subjective well-being?*

Since this study center around student's psychological well-being, it is interesting to look at national differences in life satisfaction, positive affection and negative affection. Previous research show that Iran score lower than Switzerland on life satisfaction and higher on negative affection (Kuppens, Realo, & Diener, 2008). Another cross-cultural study on life satisfaction ranked Sweden high in life satisfaction together with other Scandinavian countries, USA and Switzerland (Oishi, Diener, Lucas, & Suh, 1999). Asian countries showed lower life satisfaction, but not as low as Russia and other ex-Russian countries.

6. *Is there a difference between Iranian and Swedish students in social anxiety?*

Some cross-cultural studies suggest that collective East-Asian countries score higher in social anxiety than individual West-European and North-American countries. For example, Chinese score higher in social anxiety than Americans (Xie, Leong, & Feng, 2008). We wanted to examine if this difference is also significant for West-Asian countries, such as Iran, and Scandinavian countries, such as Sweden.

Summary

Does academic stress influence the student's psychological well-being? What is the role of social anxiety in academic stress and subjective well-being? Are there any cultural differences in the relationships between these variables? Is there a difference in levels of academic stress, social anxiety and subjective well-being between Swedish and Iranian university students?

Method

Participants

Sample demographics are shown in Table 1.

A convenience sample was recruited from Tarbiat Moallem University in Iran (n = 100) and Örebro University in Sweden (n = 105).

Table 1

Sample demographics.

	Iranian Students (n = 100)	Swedish Students (n = 105)
Age	Mean: 19,87 years	Mean: 23,57 years
Sex	Male: 35 % Female: 65 %	Male: 31,4 % Female: 68,6 %
Employment	Yes: 4 % No: 96 %	Yes: 41 % No: 59 %
Civil status	Married: 4 % Not Married: 96 %	Married: 7,9 % Relationship: 32,7 % Relationship, Distance: 13,9 % Single: 45,5 %

Material

The questionnaire is included in the appendix.

Academic stress. To measure “academic stress” we used a scale developed by Zajacova, Lynch and Espenshade (Zajacova, Lynch and Espenshade, 2005). We translated the questionnaire from English to Swedish and Persian. The questionnaire contained 28 questions with a Cronbach’s alpha of .92. There are four subgroups to this scale:

- Interaction at school (item 2, 4, 20, 21 and 23) (Cronbach's alpha = .73)
- Performance out of class (item 1, 13, 16, 17 and 25) (Cronbach's alpha = .75)
- Performance in class (item 5, 8, 10, 11 and 22) (Cronbach's alpha's = .75)
- Time management (item 3, 9, 12, 14 and 24) (Cronbach's alpha = .77)

Subjective well-being. To measure "subjective well-being" we used two different scales. The first is the "Satisfaction With Life Scale" by Ed Diener (Diener et al. 1985). It has been confirmed to be reliable when translated (Singelis et. al., 2006) and has also been used in several cross-cultural studies about life satisfaction and quality of life. The scale consists of five items, with a Chronbach's alpha of .83, which asks about life satisfaction.

The second scale that measure subjective well-being is the "Positive And Negative Affection Scale" (Watson, Clark & Tellegen, 1988), which focus on mood and emotional tendency. The scale consists of 20 items, ten negative emotions (scared, afraid, upset, distressed, jittery, nervous, ashamed, guilty, irritable and hostile) and ten positive emotions (enthusiastic, interested, determined, excited, inspired, alert, active, strong, proud and attentive), which makes it easy to make two subgroups that will be used in the results:

- Positive Affection (Cronbach's alpha = .78)
- Negative Affection (Cronbach's alpha = .81)

Social anxiety. To measure "social anxiety" we used the Liebowitz Social Anxiety Scale (Heimberg, et.al., 1999). The scale consists of 24 items (Chronbach's alpha = .90) that asks about anxiety and avoidance in different social situations.

Procedure

All questionnaires were translated from English to Swedish, for Swedish students, and from English to Persian, for Iranian students.

In Sweden, we looked at the schedule and contacted around 20 lecturers. Ten of them answered our email and accepted us to come to the class at the end of the lecture, to hand out the questionnaires. Approximately 50 percent of the students in each class stayed after the lecture and answered the questionnaire. Before answering the questionnaire, the students were given brief information about the aim of the study, that it was voluntary to participate, that they were anonymous and that they could contact us for the results of the study. No reward was given to the students.

In Iran, permission to administer questionnaires was obtained from the deans of the participating university faculties. Students were provided written information about the research and asked if they wished to participate. Approximately 99 percent chose to participate. Interviewers visited the participating faculties, contacted the college students, and administered a questionnaire containing various measures.

Results

1. Relationship Between Academic Stress and Subjective Well-Being

The results are shown in Table 2.

Including all students ($n = 205$), there was a small, but significant, negative relationship between academic stress and life satisfaction ($r = -.15, p < .05$), meaning that higher academic stress was related to lower life satisfaction. On a cultural level, the relationship between academic stress and life satisfaction was higher for Iranian students ($r = -.31, p < .01$), than for Swedish students ($r = -.21, p < .05$).

Academic stress was also related to more negative emotions ($r = .19, p < .01$) and less positive emotions ($r = -.24, p < .01$). On a cultural level, Swedish students did not have less positive emotions with higher academic stress ($r = -.10, p > .05$), but they did have more

negative emotions with higher academic stress ($r = .35, p < .01$), while Iranian students had both more negative emotions ($r = .42, p < .01$) and less positive emotions ($r = -.32, p < .01$) with academic stress.

Scoring high on academic stress subscale “interaction at school” was related to lower scores in life satisfaction ($r = -.24, p < .01$) and positive emotions ($r = -.27, p < .01$), and higher scores in negative emotions ($r = -.26, p < .01$). Scoring high on subscales “performance in class”, “performance out of class” and “time management” was related to significantly lower scores only in positive emotions, though clear cultural differences were demonstrated with Iranian students showing a significant relationship on all subscales with all three measurements of subjective well-being.

Table 2

Pearson Correlations between Subjective Well-being and Academic stress across two cultures.

	Life satisfaction			Positive Emotions			Negative Emotions		
	ALL	IRN	SWE	ALL	IRN	SWE	ALL	IRN	SWE
Academic Stress	-.15*	-.31**	-.21*	-.24**	-.32**	-.10	.19**	.43**	.35**
Interaction at school	-.24**	-.33**	-.21*	-.27**	-.38**	-.12	.26**	.41**	.25*
Performance in class	-.12	-.25*	-.21*	-.17*	-.21*	-.04	.12	.36**	.29**
Performance out of class	-.12	-.29**	-.15	-.17*	-.20*	-.05	.13	.38**	.23*
Time management	-.03	-.26**	-.16	-.22**	-.28**	-.11	-.01	.34**	.25**

Note: * = $p < .05$, ** = $p < .01$

The relationship between academic stress and life satisfaction was moderately strong for males ($r = -.27, p < .05$), but non-significant for females ($r = .12, p > .05$). When looking at Iranian males only the relationship between academic stress and life satisfaction was the strongest one ($r = -.41, p < .05$). Swedish first-year students showed a significant relationship

($r = -.37, p < .05$) between academic stress and life satisfaction, while Swedish non-first-year students did not ($r = -.05, p > .05$).

2. Relationship Between Academic Stress and Social Anxiety

The results are shown in Table 3.

Including all students, there was a positive relationship between academic stress and social anxiety ($r = .35, p < .01$), meaning that higher academic stress was related to higher social anxiety. On a cultural level, the relationship was much stronger for Iranian students ($r = .62, p < .01$), than for Swedish students ($r = .38, p < .01$).

Table 3

Pearson correlations between academic stress and social anxiety across two cultures.

	Social Anxiety		
	ALL	IRN	SWE
Academic Stress	.35**	.62**	.38**
Interaction at school	.47**	.63**	.37**
Performance in class	.21**	.49**	.23*
Performance out of class	.25**	.52**	.24*
Time management	.07	.47**	.20

Note: * = $p < .05$, ** = $p < .01$

Iranian males showed the strongest relationship between academic stress and social anxiety ($r = .71, p < .01$) followed by Iranian females ($r = .58, p < .01$), Swedish males ($r = .39, p < .05$) and Swedish females ($r = .34, p < .01$).

3. Relationship Between Social Anxiety and Subjective Well-Being

The results are shown in Table 4.

There was a negative relationship between social anxiety and life satisfaction ($r = -.26$, $p < .01$), meaning that higher social anxiety was related with less life satisfaction. Social anxiety was also negatively related with positive emotions ($r = -.24$, $p < .01$) and positively related with negative emotions ($r = .54$, $p < .01$). Social anxiety was related about equally to positive emotions and life satisfactions, but had a much stronger relationship with negative emotions.

Table 4

Pearson correlations between subjective well-being and social anxiety across two cultures.

	Social Anxiety		
	ALL	IRN	SWE
Life Satisfaction	-.26**	-.28**	-.05
Positive Emotions	-.24**	-.39**	-.16
Negative Emotions	.54**	.53**	.36**

Note: * = $p < .05$, ** = $p < .01$

On a cultural level, the relationship between social anxiety and life satisfaction was significant only to Iranian students ($r = -.28$, $p < .01$).

4. Difference in Academic Stress Between Iranian and Swedish Students

The results are shown in Table 5.

Swedish students ($M = 136,57$, $SD = 31,31$) experienced significantly more ($t(175) = 5,57$, $p < .01$) academic stress than Iranian students ($M = 105,11$, $SD = 45,97$). However, there was no significant difference in academic stress subscale “interaction at school”, indicating that it was performance and time management that accounted for most cultural differences in academic stress.

Table 5

Difference in academic stress between Iranian and Swedish students.

	Iranian Students		Swedish Students		t	Sign.
	M	SD	M	SD		
Academic stress	105,11	45,97	136,57	31,31	5,57	Yes**
Interaction at school	16,64	9,40	18,85	8,39	1,71	No
Performance in class	25,08	10,04	32,54	7,26	5,92	Yes**
Performance out of class	19,57	10,18	26,14	7,42	5,13	Yes**
Time management	17,19	8,92	29,79	7,50	10,51	Yes**
Studying	2,49	0,23	5,75	0,18	11,17	Yes**
Asking questions in class	5,17	0,33	5,43	0,30	0,59	No
Keeping up with required readings	2,41	0,22	6,87	0,22	14,45	Yes**
Understanding my professors	2,45	0,23	4,21	0,27	4,98	Yes**
Writing term papers	3,53	0,27	6,37	0,22	8,20	Yes**
Parents expectations	3,93	0,31	2,67	0,29	-2,94	Yes**
Making friends in school	3,42	0,31	3,09	0,29	-0,80	No
Doing well on exams	5,65	0,31	7,25	0,25	4,06	Yes**
Getting papers done in time	3,71	0,29	6,81	0,23	8,40	Yes**
More tests in one week	7,06	0,27	8,35	0,21	3,79	Yes**
Taking good class notes	2,71	0,25	4,33	0,26	4,52	Yes**
Managing school and work	3,90	0,26	3,89	0,34	-0,02	No
Preparing for exams	5,92	0,28	7,03	0,23	3,11	Yes**
Managing time efficiently	4,67	0,26	6,35	0,24	4,72	Yes**
Getting along with family	2,03	0,25	4,59	0,29	6,73	Yes**
Read and writing skills	2,80	0,27	3,81	0,30	2,53	Yes*
Researching term papers	4,88	0,28	4,35	0,30	1,30	No
Getting the grades I want	5,30	0,31	5,71	0,27	1,00	No
Having enough money	4,71	0,29	6,33	0,32	3,79	Yes**
Talking to professors	3,23	0,28	2,97	0,23	-0,72	No
Getting help at school	3,60	0,24	3,56	0,24	-0,12	No
Doing well in tough class	6,13	0,29	6,23	0,25	0,26	No
Talk to staff	2,19	0,22	2,68	0,23	1,54	No
Finding time to study	2,50	0,23	5,87	0,23	10,26	Yes**
Understanding textbooks	3,48	0,27	5,20	0,25	4,64	Yes**
Participate in discussions	5,04	0,35	4,87	0,31	-0,37	No
Understanding regulations	2,20	0,24	1,99	0,21	-0,66	No

Note: * = $p < .05$, ** = $p < .01$

Swedish females ($M = 142,28$, $SE = 29,71$) experienced more academic stress ($t(103) = -2,72$, $p < .01$) than Swedish males ($M = 124,76$, $SD = 32,67$). Iranian females did not experience more academic stress than Iranian males. In the Swedish sample, there was no significant difference between students who worked, and did not work, at the side of their studies. Swedish students who attended programs ($M = 132,08$, $SD = 31,34$) experienced less academic stress ($t(103) = 3,07$, $p < .01$) than the students who attended courses only ($M = 154,35$, $SE = 26,31$).

5. Differences in Subjective Well-Being Between Iranian and Swedish Students

When taking all five items of the Life Satisfaction Scale into calculation there was a significant difference ($t(189) = 2,79$, $p < .01$) between Iranian ($M = 17,66$, $SD = 0,77$) and Swedish ($M = 20,71$, $SD = 0,78$) students. Item number five in the Life Satisfaction Scale, “If I could live my life over I would change almost nothing”, has received some criticism to not be as valid as the other four items (Hultell & Gustavsson, 2007), and as the results show, the biggest difference between Iranian and Swedish students was demonstrated by item five, indicating that there might be a cultural difference in interpreting this question. If we exclude this item from the calculation there was no significant difference ($t(189) = 0,97$, $p > .05$) in life satisfaction between Iranian ($M = 15,68$, $SD = 0,65$) and Swedish ($M = 16,56$, $SD = 0,64$) students.

There was no significant difference ($t(189) = -1,88$, $p > .05$) in positive emotions between Iranian ($M = 34,66$, $SD = 0,55$) and Swedish ($M = 33,23$, $SD = 0,52$) students, but Iranian ($M = 24,99$, $SD = 0,61$) students experienced significantly more ($t(189) = -6,02$, $p < .01$) negative emotions than Swedish ($M = 19,82$, $SD = 0,60$) students.

No significant sex difference between males and females were found in Swedish or Iranian students. However, Swedish students who attended courses ($M = 15,05$, $SD = 6,72$)

experienced significantly less life satisfaction ($t(103) = 4,95, p < .01$) than students who attended programs ($M = 22,86, SD = 6,47$).

6. Differences in Social Anxiety Between Iranian and Swedish Students

Results are shown in Table 6.

A t-test showed that Iranian students ($M = 49,64, SD = 2,04$) had significantly ($t(173,9) = -5,2, p < .01$) higher social anxiety than Swedish students ($M = 35,42, SD = 1,81$). 15 percent (13 out of 88) of Swedish participants would qualify for Social Anxiety Disorder, while 36 percent (36 out of 100) of Iranian participants would qualify for Social Anxiety Disorder, using a total social anxiety score of 55 as criterion for moderate social anxiety disorder/social phobia.

There were no significant ($t(186) = -0,66, p > .05$) differences in social anxiety between male ($M = 41,69, SD = 2,66$) and female ($M = 43,80, SD = 1,83$) students.

Table 6

Differences in social anxiety between Iranian and Swedish students.

	Iranian Students		Swedish Students		t	Sign.
	M	SD	M	SD		
Speak phone in public	1,35	0,15	1,29	0,14	-0,3	No
Participate small groups	1,41	0,13	0,73	0,10	-4,1	Yes**
Eat public place	1,51	0,15	0,36	0,10	-6,3	Yes**
Drink public place	1,09	0,15	0,55	0,14	-2,6	Yes*
Speak with authority	2,22	0,16	1,77	0,16	-2,0	Yes*
Perform or hold speech	3,47	0,18	3,36	0,19	-0,4	No
Go to party	1,40	0,15	0,87	0,14	-2,6	Yes*
Work with others present	2,25	0,15	0,71	0,12	-7,9	Yes**
Write with others present	1,47	0,14	0,66	0,13	-4,2	Yes**
Call stranger	2,52	0,15	1,83	0,16	-3,1	Yes**
Talk with stranger	2,20	0,15	1,47	0,16	-3,4	Yes**
Meet stranger	2,45	0,17	1,30	0,15	-5,2	Yes**
Go to public bathroom	1,66	0,17	1,31	0,18	-1,4	No

Enter crowded room	2,21	0,14	1,44	0,16	-3,6	Yes**
Attention focused on you	2,55	0,16	2,14	0,19	-1,7	No
Say something in meeting	3,30	0,18	1,95	0,17	-5,4	Yes**
Perform written test	1,86	0,16	1,66	0,16	-0,8	No
Argument with people you don't know that well	2,08	0,14	2,42	0,18	1,5	No
Look people you don't know that well in eyes	2,37	0,16	1,23	0,15	-5,2	Yes**
Report in group	2,33	0,18	1,36	0,16	-4,2	Yes**
Pick someone up	2,42	0,19	1,92	0,19	-1,9	No
Complain damaged goods	1,88	0,15	2,05	0,20	0,7	No
Host a party	1,64	0,14	1,77	0,20	0,5	No
Resist sales people	2,00	0,17	1,16	0,15	-3,6	Yes**

Note: * = $p < .05$, ** = $p < .01$

Discussion

1. *The Relationship Between Academic Stress and Subjective Well-Being*

Previous research suggests that stress lead to decreased quality of life (Peters, 2008), and that academic stress lead to decreased psychological well-being (Chow, 2007). Our results indicate the same, showing a negative relationship between academic stress and life satisfaction. Mood, especially negative, seems to be affected more than life satisfaction, when experiencing academic stress. It seems that academic stress has a negative relationship not only with academic performance, as previous research suggest (Zajacova, Lynch, & Espenshade, 2005), but also to life satisfaction and mood. This motivates further research to find more specific factors that influence subjective well-being. The study also confirms the theory that it would be sensible to try to decrease academic stress in favor for higher life satisfaction and better mood.

On a cultural level, the relationship was small to Swedish students, but moderate to Iranian students. One explanation why the relationship is stronger for Iranian students could be that Iranian students experience more academic stress. But as the results showed, Iranians

experienced less academic stress. Another explanation could be that Swedish students do not take their studies as seriously as Iranian students, and that the role as a (good) student is more important to Iranian students.

The results also revealed interesting sex differences, with Iranian males showing the biggest relationship between academic stress and subjective well-being, followed by Iranian females, Swedish males and Swedish females. It seems that males are more sensitive to academic stress than females, in this area. Experience at the university also makes the student less sensitive to academic stress. This is consistent with the findings by Henry Chow (2007), suggesting sex and study time differences in academic performance.

2. Relationship Between Academic Stress and Social Anxiety

As expected, there was a moderate relationship between academic stress and social anxiety. Social stressors seem to be more important factors in academic stress than study-related stressors. This is consistent with the findings that the academic stress subcategory “interaction at school” had the biggest influence on life satisfaction. Iranian students, especially males, showed a high relationship between social anxiety and academic stress. This could be explained by a high level of general social anxiety experienced. Iranian students seemed to be more sensitive and more prone for experiencing social anxiety. Why this is the case is not clear. One possible explanation is that, in a collectivistic culture such as Iran, social relationship and satisfying the other people is more important than in an individualistic culture such as Sweden, in which the desires and satisfactions of individuals become more important (a cultural difference suggested by Hofstede 2001).

Although students still stay in school and still perform well while experiencing social anxiety (Strahan, 2003), decreasing social anxiety will also decrease academic stress levels and increase the students well-being, since we have demonstrated such relationships.

3. Relationship Between Social Anxiety and Subjective Well-Being

There was a negative relationship between social anxiety and subjective well being. The biggest relationship was found with negative emotions, promoting the idea that mood suffer more than life satisfaction from social anxiety.

On a cultural level, the relationship between life satisfaction and social anxiety was not significant to Swedish students, but significant to Iranian students. As discussed in the previous point, a higher level of experienced social anxiety to Iranian students could explain this difference. It seems as the sensitivity of social anxiety influencing subjective well-being decreases with lesser levels of social anxiety experienced. A person with higher social anxiety is more likely to be experiencing decreased subjective well-being. This makes sense, as people with social anxiety disorder do experience less quality of life (Mendlowicz & Stein, 2000). It is clear that social anxiety does not need to be related with a drop in subjective well-being, as the Swedish sample in this study demonstrated. We suggest further research in the area "quality of life and student anxiety", and not only a comparison between clinical and non-clinical subjects.

4. Differences Between Iranian and Swedish Students in Academic Stress

Iranian students experienced less academic stress than Swedish students. The biggest differences were found in the items "keeping up with required readings", "studying" and "finding time to study". Obviously, Swedish students do not feel as relaxed and focused as Iranian students when it comes to these items.

We can speculate if this difference is explained by harder studies in Sweden, making Swedish students more stressed. Another possible explanation to this difference is that Swedish students have less time to study, due to work at the side of the studies, which the Swedish students do much more according to sample demographics. However, there was no

significant difference in academic stress between Swedish students who work and who do not work. A third possible explanation of the cultural differences is that the role as a student is clearer to the Iranian students, that they identify themselves more as a student and with their studies. This was also demonstrated by the significant difference between Swedish course and program students. Attending a program, which could be seen as more stable and more related to work outcome, resulted in less academic stress than attending a course. Further research, with a larger and randomized sample, is needed whether Iranian students take their role as a student more seriously and study more, which could decrease the level of academic stress. With other words, how different student-roles are related to academic stress.

Another notable result is that Swedish female students experienced more academic stress than Swedish male students. As we have discussed earlier, females seem to be less sensitive to higher academic stress.

5. Differences Between Iranian and Swedish Students in Subjective Well-Being

Although Iranian students experienced less academic stress, they also experienced less subjective well-being, compared to Swedish students. This is inconsistent with the relationship we found about higher academic stress being related with lower subjective well-being, demonstrating the importance of including other factors than academic stress when looking at the student's subjective well-being. Cultural differences in individualism and self-expression could explain some variance in subjective well-being, with higher levels of individualism and self-expression being related with higher levels of subjective well-being (Kuppens, Realo, & Diener, 2008).

The difference between course and program students appears also in subjective well-being, with course students scoring lower than program students. The sample is small though ($n = 105$) with only 22 course students. But this difference could indicate the importance of

having a high possibility to get a job when studies are completed. We can assume that program students attract employers more.

6. Differences Between Iranian and Swedish Students in Social Anxiety

As we have seen previously, social anxiety was much more highly related with academic stress to Iranian students than Swedish students. Results also indicate that Iranian students experienced more social anxiety than Swedish students. This strengthens the thesis that a more collective and authoritative society could be related with higher social anxiety, because of more focus on social and authoritative relationships. Future research could investigate whether more study time and “study isolation” is related to more social anxiety. Perhaps Iranian students study more and therefore experience more social anxiety, as a result of less social interaction?

Conclusions and Limitations

In this study we, first of all, wanted to see if there was a relationship between academic stress and subjective well-being. It seems like academic stress is bad to the student’s life satisfaction, but worse to the student’s mood. It would be interesting to see a longitudinal study on this question, to see if mood fluctuates more than life satisfaction. Fluctuation and long term effect of academic stress on subjective well-being is of great interest to know more about. This study did not investigate the role of stress coping on academic stress. It is possible that different stress-coping styles lead to different long term effects on subjective well-being.

The study did get a bit complicated with the cultural twist, comparing Iran and Sweden. The weakness of a cross-cultural study is the difference is the difference in methods of data collection. Even though two researchers might agree remotely on how to perform a study, the execution could vary. One such variation was the participation of students. In Iran, 99 percent of students contacted participated. In Sweden, 50 percent of students contacted participated. It

is also unclear whether the difference in the two cultures views on authority could cause bias, with Iranian students being worried that an authority would take part of the results. We think this bias is unlikely since the study was anonymous.

This study did demonstrate cultural and sex differences in academic stress, subjective well-being and social anxiety between Iranian and Swedish students, with Swedish females showing the highest amount of academic stress, but the lowest sensitivity in the relationship between academic stress and life satisfaction. Comparing Iran and Sweden added to previous cross-cultural research about academic stress and well-being.

It would be a good idea to conduct experimental research and develop a “student happiness index” (similar to Diener, 2000), listing predictors (such as study time, coping style and social skills, see appendix for a full list of suggested predictors) of students life satisfaction when experiencing academic stress, since it is unclear if academic stress actually cause less life satisfaction.

References

- Ang, R. P., Huan, V. S., & Braman, R. (2007). Factorial structure and invariance of the academic expectations stress inventory across Hispanic and Chinese adolescent samples. *Child Psychiatry & Human Development, 8*, 73-87.
- Aristotle. (2000). *Nicomachean Ethics* (R. Crisp, Translator). Cambridge University Press, Cambridge, England.
- Brissette, I., Leventhal, H., & Leventhal, E. A. (2003). Observer Ratings of Health and Sickness: Can Other People Tell Us Anything About Our Health That We Don't Already Know? *Health Psychology, 22*, 471-478.
- Chow, H. P. (2007). Psychological well-being and scholastic achievement among university students in a Canadian Prairie City. *Social Psychology of Education, 10*, 483-493.
- Diener, E., Emmons, R. A., Larsen, R. J., & Griffin, S. (1985). The Satisfaction With Life Scale. *Journal of Personality Assessment, 49*, 71-75.
- Heimberg, R. G., Horner, K. J., Juster, H. R., Safren, S. A., Brown, E. J., Schneier, F. R., et al. (1999). Psychometric properties of the Liebowitz Social Anxiety Scale. *Psychological Medicine, 29*, 199-212.
- Hofstede, G. (2001). *Culture's consequences: Comparing values, behaviors, institutions, and organizations across nations* (2nd ed.). Thousand Oaks, CA: Sage.
- Hultell, D., Gustavsson, J. P. (2007). A psychometric evaluation of the Satisfaction with Life Scale in a Swedish nationwide sample of university students. *Personality and Individual Differences, 44*, 1070-1079.
- Inglehart, R., & Baker, W. E. (2000). Modernization, cultural change, and the persistence of traditional values. *American Sociological Review, 65*, 19-55.
- Kuppens, P., Realo, A., & Diener, E. (2008). The Role of Positive and Negative Emotions in Life Satisfaction Judgment Across Nations. *Journal of Personality and Social Psychology, 65*, 66-75.
- Mendlowicz, M. V., & Stein, M. B. (2000). Quality of life in individuals with anxiety disorders. *American Journal of Psychiatry, 157*, 669-682.
- Misra, R., & Castillo, L. G. (2004). Academic Stress Among College Students: Comparison of American and International Students. *International Journal of Stress Management, 11*, 132-148.
- Norberg, M. M., Diefenbach, G. J., & Tolin, D. F. (2008). Quality of life and anxiety and depressive disorder comorbidity. *Journal of Anxiety Disorders, 22*, 1516-1522.

- Oishi, S., Diener, E. F., Lucas, R. E., & Suh, E. M. (1999). Cross-cultural variations in predictors of life satisfaction: Perspectives from needs and values. *Personality and Social Psychology Bulletin*, 25, 980-990.
- Peters, B. M. (2008). The relationships among physiological and perceived stress, quality of life, self-care, and impairment in doctoral students. *Dissertation Abstracts International: Section B: The Sciences and Engineering*, 68, 6379.
- Seligman, M. E., & Csikszentmihalyi, M. (2000). Positive psychology: An introduction. *American Psychologist*, 55, 4-15.
- Singelis, Theodore M., Yamada, Ann M., Barrio, Concepcion., Laney, Joshua H., Her, Pal., Ruiz-Anaya, Alejandrina., et al. (2006). Metric Equivalence of the Bidimensional Acculturation Scale, the Satisfaction With Life Scale, and the Self-Constraint Scale Across Spanish and English Language Versions. *Hispanic Journal of Behavioral Sciences*, 28, 231-234
- Stewart, S. M., Lam, T. H., Betson, T. L., Wong, C. M., & Wong, A. M. (1999). A prospective analysis of stress and academic performance in the first two years of medical school. *Medical Education*, 33, 243-250.
- Strahan, E. Y. (2003). The effects of social anxiety and social skills on academic performance. *Personality and Individual Differences*, 34, 347-366.
- Vaez, M., & Laflamme, L. (2008). Experienced stress, psychological symptoms, self-rated health and academic achievement: a longitudinal study of Swedish university students. *Social Behavior and Personality*, 36, 183-196.
- Watson, D., Clark, L. A., & Telgen, A. (1988). Development and Validation of Brief Measures of Positive and Negative Affect: The PANAS Scales. *Journal of Personality and Social Psychology*, 54, 1063-1070.
- Vivien, H. S., Lay See, Y., Ang, R. P., & Wan Har, C. (2008). The impact of adolescent concerns on their academic stress. *Educational Review*, 60, 169-178.
- Xie, D., Leong, F. T., & Feng, S. (2008). Culture-specific personality correlates of anxiety among Chinese and Caucasian college students. *Asian Journal of Social Psychology*, 36, 163-174.
- Zajacova, A., Lynch, S. M., & Espenshade, T. J. (2005). Self-Efficacy, Stress and Academic Success in College. *Research in Higher Education*, 46, 677-706.

Appendix

The Questionnaire (in Swedish), page 26-29

The “Academic Stress Outcome on Life Satisfaction Model”, page 30

ENKÄTUNDERSÖKNING

INSTRUKTIONER

OBS, LÄS DETTA FÖRST! Det är viktigt att du är öppen och ärlig i dina svar. Svara hur det ÄR och *inte* hur du skulle *VILJA* att det var. Läs igenom instruktioner och frågor noga. Vi är mycket tacksamma för din tid och din uppmärksamhet. Att du delar med dig av dina subjektiva uppfattningar betyder mycket för oss.

Enkätundersökningen behandlas med anonymitet.

Ha en bra fortsatt dag! Tack för din medverkan!

PERSONLIGA UPPGIFTER

ÅLDER: ____ år

KÖN: Man Kvinna

FÖDELSEPLATS: Sverige Europa Asien Nordamerika Sydamerika Afrika
 Oceanien Annan plats

VAD TALAR DU FÖR SPRÅK HEMMA?: _____

CIVILSTÅND: Gift Sambo Ensamstående Särbo

VAD LÄSER DU FÖR ÄMNE PÅ UNIVERSITETET?: _____

HUR MÅNGA TERMINER HAR DU LÄST VID UNIVERSITETET?: ____

TYP AV UTBILDNING: Program Kurs

ARBETAR: Ja Nej **OM JA, VILKEN TYP AV ARBETE:** _____

Hur många procent av heltid jobbar du?: ____%

DEL ETT

Besvara hur stressande nedanstående uppgifter är för dig, från **0 = inte alls stressande till 10 = extremt stressande**. Ringa in det värde som ligger närmast din uppskattning.

	<u>Inte alls</u>	<u>Extremt</u>
Studera	0 1 2 3 4 5 6 7 8 9 10	
Ställa frågor i klassrummet	0 1 2 3 4 5 6 7 8 9 10	
Hinna med nödvändig läsning	0 1 2 3 4 5 6 7 8 9 10	
Förstå mina lärare	0 1 2 3 4 5 6 7 8 9 10	
Skriva PM och uppsatser	0 1 2 3 4 5 6 7 8 9 10	
Min familjs förväntningar på mina betyg	0 1 2 3 4 5 6 7 8 9 10	
Hitta vänner i skolan	0 1 2 3 4 5 6 7 8 9 10	
Prestera bra på tentor	0 1 2 3 4 5 6 7 8 9 10	
Få skolarbeten och uppgifter gjorda i tid	0 1 2 3 4 5 6 7 8 9 10	
Ha flera prov under samma vecka	0 1 2 3 4 5 6 7 8 9 10	
Ta bra föreläsningssanteckningar	0 1 2 3 4 5 6 7 8 9 10	
Hinna med både skola och eventuellt arbete	0 1 2 3 4 5 6 7 8 9 10	
Hinna med både skola och fritid	0 1 2 3 4 5 6 7 8 9 10	
Förberedelser inför tentor	0 1 2 3 4 5 6 7 8 9 10	
Hantera tiden effektivt	0 1 2 3 4 5 6 7 8 9 10	
Hinna med att umgås med familjemedlemmar	0 1 2 3 4 5 6 7 8 9 10	
Förbättra mina läs- och skrivfärdigheter	0 1 2 3 4 5 6 7 8 9 10	
Att göra forsknings- laborationsuppgifter	0 1 2 3 4 5 6 7 8 9 10	
Få de betyg jag vill ha	0 1 2 3 4 5 6 7 8 9 10	
Ha tillräckligt mycket pengar till/under min utbildning	0 1 2 3 4 5 6 7 8 9 10	
Prata med mina lärare	0 1 2 3 4 5 6 7 8 9 10	
Få hjälp och information i skolan	0 1 2 3 4 5 6 7 8 9 10	
Göra bra ifrån mig i svåra delkurser	0 1 2 3 4 5 6 7 8 9 10	
Prata med skolans personal	0 1 2 3 4 5 6 7 8 9 10	

Avsätta tid till att studera	0	1	2	3	4	5	6	7	8	9	10
Förstå kurslitteraturen	0	1	2	3	4	5	6	7	8	9	10
Delta i klassens diskussioner	0	1	2	3	4	5	6	7	8	9	10
Förstå skolans regler/förordningar	0	1	2	3	4	5	6	7	8	9	10

DEL TVÅ

Hur väl stämmer nedanstående påståenden överens med dig? Ringa in ditt svarsalternativ (**0 = stämmer inte alls och 7 = stämmer mycket väl**)

Påstående	Stämmer inte alls	Stämmer mycket väl
Mitt liv är på de flesta sätt nära mina ideal	0 1 2 3 4 5 6 7	
Min livssituation är utmärkt	0 1 2 3 4 5 6 7	
Jag är nöjd med mitt liv	0 1 2 3 4 5 6 7	
Hittills har jag fått alla viktiga saker jag vill ha i mitt liv	0 1 2 3 4 5 6 7	
Om jag fick leva om mitt liv, skulle jag nästan inte ändra på någonting	0 1 2 3 4 5 6 7	

DEL TRE

Denna uppgift består av ett antal ord som beskriver olika känslor. Läs varje ord och ange hur du känner dig i allmänhet (hur du känner dig i det stora hela) gällande den nämnda känslan. Föreställ "Jag är..." framför känslan, om det blir lättare.

Fyll i svarsalternativ (1-5) bredvid varje ord.

1 = Inte alls/väldigt lite 2 = Lite 3 = Måttligt 4 = Mycket 5 = Väldigt mycket

___ intresserad	___ lättirriterad	___ fientlig
___ ointresserad	___ alert	___ spänd
___ ivrig	___ skamsen	___ entusiastisk
___ missbelåten	___ inspirerad	___ flitig
___ stark	___ nervös	___ rädd
___ skuldmedveten	___ bestämd	___ stolt
___ skräm	___ uppmärksam	

DEL FEM

Nedan finns en lista med situationer du skulle kunna befinna dig i. Värdera hur mycket ångest/rädsla du känner för dessa situationer.

(0 = ingen, 1 = mild, 2 = måttlig, 3 = stark)

Värdera även hur ofta du undviker dessa situationer.

(0 = aldrig, 1 = ibland, 2 = ofta, 3 = i stort sett alltid)

Situation	<u>Ångest/Rädsla</u>	<u>Undviker</u>
	0 = ingen 1 = mild 2 = måttligt 3 = stark	0 = aldrig 1 = ibland 2 = ofta 3 = i stort sett alltid
1. Prata i telefon offentligt	0 1 2 3	0 1 2 3
2. Delta i små grupper	0 1 2 3	0 1 2 3
3. Äta på restaurang/offentlig plats	0 1 2 3	0 1 2 3
4. Dricka tillsammans med andra på offentliga platser	0 1 2 3	0 1 2 3
5. Prata med auktoritär person	0 1 2 3	0 1 2 3
6. Uppträda eller hålla tal inför publik	0 1 2 3	0 1 2 3
7. Gå på fest	0 1 2 3	0 1 2 3
8. Arbeta när andra är närvarande	0 1 2 3	0 1 2 3
9. Skriva när andra är närvarande	0 1 2 3	0 1 2 3
10. Ringa upp någon du inte känner	0 1 2 3	0 1 2 3
11. Prata med personer du inte känner särskilt bra	0 1 2 3	0 1 2 3
12. Träffa främlingar	0 1 2 3	0 1 2 3
13. Gå på en offentlig toalett	0 1 2 3	0 1 2 3
14. Gå in i ett rum, där andra redan sitter ner	0 1 2 3	0 1 2 3
15. Ha andras uppmärksamhet riktad mot mig	0 1 2 3	0 1 2 3
16. Säga något på ett möte	0 1 2 3	0 1 2 3
17. Göra ett skriftligt test	0 1 2 3	0 1 2 3
18. Argumentera med, eller säga till, personer du inte känner särskilt väl	0 1 2 3	0 1 2 3
19. Titta personer du inte känner särskilt väl i ögonen	0 1 2 3	0 1 2 3
20. Rapportera i grupp	0 1 2 3	0 1 2 3
21. Flirta med någon	0 1 2 3	0 1 2 3
22. Reklamera varor som det är fel på	0 1 2 3	0 1 2 3
23. Vara värd för en fest	0 1 2 3	0 1 2 3
24. Stå emot försäljare	0 1 2 3	0 1 2 3

ACADEMIC STRESS OUTCOME ON LIFE SATISFACTION MODEL

Factors that could influence the outcome on life satisfaction, when experiencing academic stress.

(Some Suggested) Predictors of Life Satisfaction with Academic Stress

- **Personality**
 - Stress Prone
 - Anxiety Prone
 - Depression Prone
 - (Too) High Ideals
 - (Too) High Demands
 - Low interest in studying
 - Low interest in subject
- **Environment**
 - Socioeconomic status
 - Possibility to get job after studies
 - Relatives Demands
 - Family Responsibility
- **Academic Demands**
 - Amount of Studies
 - Difficulty of Studies
- **Coping**
 - Stress Coping Ability
- **Academic Performance**
 - Time Spent on Studying
 - Ability to Organize Studying
 - Ability to Understand Studies