

## **Assessing Stress among University Students**

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### **Abstract**

*The study aimed to assess the levels of stress experienced by university students. A quantitative approach has been undertaken to assess students' stress. The sample consisted of 471 students from Tafila Technical University. The results indicate that the students experienced a moderate level of stress.*

**Keywords:** Stress, Students, Assessment, College, Psychology.

### **Introduction**

Transition of students from school environment to university environment could cause a psychological, academic and social shock to them, since this educational system has huge differences: the student will face new methods of teaching, new academic requirements, new type of relations between students and faculties and even new relations among students themselves. In Jordan, most schools are unisex so students co-education will have new types of relations with the opposite sex. Due to these changes, students can potentially experience different types of stress that can affect their mental and social health and their academic achievement. Stress is one of the main aspects of our modern life, resulted from the rapid changes in human life, so this age is called the age of stress, students suffer from academic stress resulted from testing, home works and other school requirements which may exceed their abilities, mothers have their own stress resulted from child education, employees, leaders, and all community have different types of stress, sometimes the same person suffers from different types of stress at the same time (Hussien and Hussien, 2006).

Hancock and Szalma (2008) noted that two general themes characterize modern stress theory. First, the presence of a mechanism through which individuals evaluate events in terms of their meaning fullness to the psychological or physical well-being. Second, individuals regulate their internal states and engage these mechanisms to compensate for perturbations induced by external events, including task demands. As any psychological concept, stress has different definitions. Ibrahim (1998) defined stress as a severe emotional response resulted from internal or external change. According to Greenberg and Baroon (2000) stress is personal, physiological and emotional reactions against stimulus. Hussien and Hussien (2006) defined stress as the situation by which the individual suffers from physical and psychological hyper tension resulted from factors that can't be handled and exceeds human ability to cope with .

Stressors refer to the factors or stimulators that cause psychological physical stress. Some scientists classify these stressors according to their frequency or duration (Hussien and Hussien,2006). Weightman (1999) classifies stressors into three main categories: Sudden traumatic, chronic stressors and daily hassles. According to that there are three main trends in studying stress. First, stress is a stimulus that threatens the individual life, so stress is an independent variable originated from the individual internal environment.

Second, stress is response to the external environment, so stress is treated as a dependent variable which affects physiological, emotional and cognitive body functions. Third trend is the transactional approach which is a combination of the two previous trends. (Hussien and Hussien, 2006).

### Review of Literature

Many researchers studied the stress experienced by students and the demographic factors affecting it. The study of Hamaideh (2011) aimed to identify stress and reactions to stress among university students and examine the correlations between student stressors and study variables. The result indicated that the highest group of stressors experienced by students was self imposed stressors followed by pressure. Cognitive responses were found to be the highest responses to stressors experienced by students.

Chen, Wong, Ran and Gilson (2009) conducted a study to describe the relationship between college stress, coping strategy and psychological well-being, they used (342) students in (6) universities. The study has proved that psychological well-being has a negative relationship with college stress and a positive coping strategy has significant buffering effects on psychological health problems. Also they found that the male students reported higher level of stress, worse psychological well-being, and having less inclination towards using positive coping strategies. Tajularipin, Vizata and Saifuddin (2009) found that (29%) of the students experienced medium stress, and there is a significant difference in the level of stress attributed to gender, and between students in rural and urban secondary schools, the results also indicated that there are many factors influence students' stress such as parenting style, and parents education background.

Laurence, Williams, and Eiland (2009) conducted a survey of (453) graduate students, (25%) reported elevated depressive symptoms, the study indicated the exams, fear of falling, shortage in clinical time, decrease in self-esteem and prompt reduction in time spent in recreational activity have been associated with higher stress levels. The purpose of Iglesias et al (2008) study was to obtain empirical evidence of the effects of a stress management programme on undergraduate Pharmacy and Biochemistry students. This programme consisted of (2) main stages, the first stage was to evaluate beliefs, academic skills and personal stress involvement problems. The second stage was to design a stress management pilot program (SMPP), this program included psycho-educational resources. The results suggested that SMPP has a promising applicability to deal with high levels of stress, improving the student academic performance and health.

Kranz (2008) study used to evaluate stress levels experienced by students in a pharmacy curriculum. Data were collected using an individual interview that consisted of both a demographic and stress questionnaire. The results indicated that: students rated stress to be average to above average, with a mean score of 3.8 out of 5, with regard to approaches used to manage stress, (70.5%) reported some form of active approach such as exercising , playing basketball or swimming. Wong, Cheung, Chan and Tang (2006) conducted a web-based survey of depression, anxiety and stress in first year tertiary education students in Hong Kong, the results indicated that (27.5%) of the sample (7915 students) had a moderate severity or above of depression, anxiety and stress.

### Abbreviations

TTU: Tafila Technical University .

CA: Cumulative Average .

SSL: Student Study Level (1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup>) .

### Purpose of the Study

This study aimed to assess the stress level experienced by students at Tafila Technical University (TTU) and the factors most associated with this stress. More precisely, the study aimed to answer the following questions:

- 1- What is the stress level that the university students have?
- 2- What are the factors associated with students stress?
- 3- Are there any statistically significant differences ( $\alpha \leq 0.05$ ) in the stress level attributed to gender, college, student cumulative average (C.A), income, and students study level (S.S.L)?

### The importance of the study

Stress is one of the serious issues that affect university student's life, its effects could be reflected in student social, academical, and mental health. Linn and Zeppa (1984) found that stress can lead to academic decline, poor relationships with peers and family members and overall dissatisfaction with life.

So each university has to assess its students stress in order to provide them with the suitable mental health care and the efficient methods to cope with stress.

This study will provide stakeholders with scientific information related to stress level in order to help students to avoid stress from the beginning.

**Method**

Participants were recruited from a population of 1<sup>st</sup>, 2<sup>nd</sup>, 3<sup>rd</sup>, and 4<sup>th</sup> year (TTU) students, they were chosen randomly, so the study sample consisted of (473) student which forms (11%) of the study population. The study used (35) items questionnaire (Appendix1) to gather information regarding levels of stress, these items assess (3) main domains; the first is the physical factor (11) items, the second is the social factor (9) items, and the third is the academic factor (15) items.

The questionnaire was previously reviewed by experts in mental health, assessment, and psychology in order to check its validity and they made some adjustments. The questionnaire also included these demographic factors: gender, college Cumulative Average (C.A), Student Study Level (SSL), and family income.

The instrument reliability was checked using internal consistency (cronbach  $\alpha$ ) and it found that reliability coefficient is (0.87) for the whole scale and it ranges from (0.79-0.84) for the scale domains (table 1).

**Table 1. Reliability index**

	Cronbach's $\alpha$
Physical Factor	0.83
Social Factor	0.79
Academic Factor	0.84
Scale	0.87

**Statistical Analysis**

Descriptive statistics, MANOVA, and correlations were used to analyze the study data using SPSS.

**Results**

The results indicate that the stress levels experienced by student are moderate (3.15 out of 5). And it is found that the mean for stress associated with social factors was (3.35) and for the academic factors was (3.25) and for the physical factors was (2.83). (Table.2).

**Table.2 Stress Means**

Stress source	Mean	Std. Deviation
Social	3.3549	.63967
Academic	3.2579	.66488
Physical	2.8345	.85007
Scale	3.151	1.32

The analysis of the physical factor items showed that the highest items caused stress were items number (3, 8 and 7) these items reflect symptoms: can't sleep, feeling tired and back pain. Table (3) represents means and standard deviations for the physical factor items.

**Table 3. means and standard deviations for the physical factor items**

Item	Item No.	Mean	Std. Deviation
I suffer from a daily headache	item1	2.9386	1.16679
I suffer from neck pain .	item2	2.9492	1.33130
I cant sleep .	item3	3.8792	1.21396
I cant breath .	item4	2.4513	1.36912
I suffer from heart problems	item5	2.1780	1.43289
I don't like food	item6	2.8941	1.14427
I suffer from back pain	item7	3.0890	1.21409
I feel tiered .	item8	3.7097	1.25618
I cant stretch my legs and hands	item9	2.5169	1.37298
I suffer from blood pressure	item10	2.0699	1.24894
I feel sometimes low or high temperature	item11	2.5042	1.38539

Items (20, and 17) are the main items causing stress regarding the social factor these items express the nervous and bad interaction with others. Table (4) represents means and standard deviations for the social factor items.

**Table 4. means and standard deviations for the social factor items**

Item	Item No.	Mean	Std. Deviation
My family have a good relations	item12	2.1036	1.34032
My social life become limited	ietm13	2.8684	1.45269
I enjoy meeting people	item14	2.2030	1.13326
I spend a budget for entertainment and recreation	item15	2.9044	1.33164
I have relationships with other relatives and friends	item16	2.0677	1.12543
I always have conflict with others	item17	3.1359	1.27438
I Insisted on my opinion	item18	2.5159	1.25107
I don't like dealing with others	item19	2.7304	1.39662
I deal with others nervously when they try to provocative me	item20	3.2569	1.41264

Regarding the academic factor it is found that items: (35,34,26,25,30 and 31) are the main items causing academic stress: items35 (students don't enjoy university activities), 34 (students feel frustrated because they don't have institutional academic help), 26 (students depressed because of their low commutative average), 25 (student worried about their academic progress), 30 (students can't find solutions for their academic problems) and 31(homework cause stress and mental fatigue to the students).Table.5 shows means and standard deviations for academic factor items .

**Table 5. means and standard deviations for the academic factor items**

Item	Item No.	Mean	Std. Deviation
I lack self confidence	item21	2.3890	1.46022
I have a financial problems because of the expenses of the university	item22	3.3763	1.49648
I act with hostility when I exposed to harassment and ridicule from students and teachers	item23	2.7378	1.46967
I find it difficult to reach practical solutions to my academic problems	item24	3.4101	1.22339
I am worried about my academic progress	item25	3.6533	1.29466
I feel depressed because of my low cumulative average	item26	3.7801	1.42402
I feel disturbed when I asked about my academic achievement	item27	3.5243	1.29697
My course duties accumulate and I cant complete it	item28	3.3066	1.37050
Sometimes I think of leaving the university	item29	2.9810	1.35674
I feel helpless in dealing with academic problems that I've been having	item30	3.2220	1.30813
I feel stress and mental fatigue from the large number of homework	item31	3.1586	1.31735
I avoid setting for examinations	item32	2.6786	1.48663
I miss attending lectures	item33	2.8203	1.34647
I feel frustrated by the lack of institutional care of students	item34	3.8689	1.18059
I do not enjoy the university activities	item35	3.9619	1.33667

**Results for question (2)**

- Female students have more stress level (3.16) than males (3.14) and by using t-test, it was found that the difference is statistically significant at ( $\alpha \leq 0.05$ ).
- By using MANOVA, it was found that gender, college and study level are statistically significant ( $\alpha \leq 0.05$ ) factors in causing stress associated with physical factor while they are not significant in social or academic factors. It was found also that the income variable is statistically significant with physical and social factors. Regarding the interaction between variables, it was found that following interactions were statistically significant: gender with college for the physical factor, college with income for the social factor, college with S.S.L for the academic factor, income with S.S.L for the academic factor, gender with college and income for the academic factor, college with income and S.S.L for the physical and social factors table (6) represents MANOVA results.
- The results showed that students of the 1<sup>st</sup> year had more social stress than other years. Concerning the academic stress it was found that students from educational sciences college and administration and finance college have more stress than students from other university colleges.
- The results indicated a positive significant correlation between family income and males stress level. Also it was found that the correlation between students accumulative average and academic stress were negatively significant. While it was positively significant with social and physical stress.
- The results indicated that the three factors (physical. social and academic) were explained (0.47) of the university students stress.
- The results also indicated that the independent variables (gender, college, income and study level) explain (0.417,0.417 and 0.446) of the variance of physical, social, and academic stress respectively.

**Table 6. represent MANOVA results**

Source	Dependent Variable	Type III Sum of Squares	df	Mean Square	F	Sig.
gender	physical	4.927	1	4.927	10.469	.001
	social	.448	1	.448	1.514	.219
	academic	.594	1	.594	1.953	.163
college	physical	5.363	4	1.341	2.849	.024
	social	.877	4	.219	.740	.565
	academic	1.127	4	.282	.926	.449
incom	physical	6.516	3	2.172	4.615	.003

	social	6.278	3	2.093	7.065	.000
	academic	.012	3	.004	.013	.998
S.S.L	physical	5.133	3	1.711	3.635	.013
	social	1.621	3	.540	1.824	.142
	academic	1.118	3	.373	1.225	.300
gender * college	physical	7.960	4	1.990	4.229	.002
	social	.192	4	.048	.162	.957
	academic	2.435	4	.609	2.002	.094
gender * incom	physical	3.022	3	1.007	2.140	.095
	social	1.032	3	.344	1.161	.324
	academic	.722	3	.241	.791	.499
gender * S.S.L	physical	.364	2	.182	.386	.680
	social	.577	2	.288	.973	.379
	academic	1.414	2	.707	2.325	.099
college * incom	physical	8.096	12	.675	1.434	.148
	social	9.321	12	.777	2.622	.002
	academic	5.029	12	.419	1.378	.174
college * S.S.L	physical	7.380	12	.615	1.307	.212
	social	3.213	12	.268	.904	.543
	academic	8.431	12	.703	2.310	.007
incom * S.S.L	physical	6.161	8	.770	1.636	.113
	social	4.396	8	.550	1.855	.066
	academic	7.736	8	.967	3.179	.002
gender * college * incom	physical	6.828	8	.854	1.814	.073
	social	4.251	8	.531	1.794	.077
	academic	9.259	8	1.157	3.805	.000
gender * college * S.S.L	physical	3.556	6	.593	1.259	.275
	social	2.333	6	.389	1.313	.250
	academic	.812	6	.135	.445	.848
gender * incom * S.S.L	physical	2.594	3	.865	1.838	.140
	social	.358	3	.119	.403	.751
	academic	.996	3	.332	1.092	.352
college * incom * S.S.L	physical	28.782	17	1.693	3.598	.000
	social	12.558	17	.739	2.494	.001
	academic	9.447	17	.556	1.827	.023
gender * college * incom * S.S.L	physical	1.955	3	.652	1.385	.247
	social	.727	3	.242	.818	.485
	academic	1.846	3	.615	2.023	.110
Error	physical	178.834	380	.471		
	social	112.566	380	.296		
	academic	115.576	380	.304		
Total	physical	4141.286	473			
	social	5516.871	473			
	academic	5229.124	473			
Corrected Total	physical	341.073	472			
	social	193.133	472			
	academic	208.657	472			

### **Discussion**

The results indicate that university students experienced a moderate stress level and the main factor is the social factor and this may be due to the fact that students come from different cities and they have new relations, in addition to the type of social life at Tafila community; this community is a conservative, traditional community, which resists the relation between boys and girls students, in addition most students live in campus away from their families. The analysis of the social factor items shows that students have problems in social communication.

The second factor affects students mental health and causes stress to them is the academic factor, students feel unhappy with the university climate and they need more academic counselling to solve their problems and according to that their ( a .c ) decreased so they were worried about their academic progress. These factors cause the students many physical problems such as difficulty of sleeping and feeling tired and pain.

The results indicate that female students had more stress than males; this could be explained by the fact that females are more subjected to the community pressure and they still under the pressure of the cultural habits.

The income affects males stress more than females. Since males usually need more money than females.

The results indicated that students from scientific educational college and finance and administration college have more academic stress than other colleges student, and this may be due to the fact that those students have lower average grades in high school. The transition shock from school to university explains the high stress of the 1<sup>st</sup> year students .

### **Conclusion**

The university students experienced a moderate social, academic and physical stress level.

### **Recommendations**

The researches recommend that university decision makers have to provide students with a psychological, social and academic counselling in order to decrease the students stress. So they can achieve better and have a good mental health. They have to involve students with different activities to reduce the gaps between them; also they have to provide students with a suitable teaching and learning methods in order to decrease their academic stress.

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