

## Stress and Its Associated Factors among Students of the College of Nursing University of Baghdad

الإجهاد النفسي والعوامل المرتبطة بين طلبة كلية التمريض في جامعة بغداد

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### الخلاصة:

**الهدف:** تهدف الدراسة الحالية الى التعرف على مستوى الإجهاد لدى طلبة كلية التمريض وتحديد العوامل المرتبطة بالإجهاد لديهم. **المنهجية:** دراسة وصفية عبر المقطعية أجريت للفترة، الأول من تشرين الثاني، 2014 ولغاية الأول من أيار، 2015. أجريت الدراسة على طلبة الدراسات الأولية في كلية التمريض/جامعة بغداد. تكونت عينة الدراسة من (128) طالب وطالبة تم اختيارهم بالطريقة العمدية. تم اعتماد وتعديل الاستبيان للدراسة الحالية والذي يضم المعلومات الديموغرافية للطلبة ومقياس الاجهاد المدرك من قبل طلبة التمريض. تم جمع البيانات من خلال استخدام استبيان الملئ الذاتي كوسيلة لجمع البيانات. وأجريت التحليلات الاحصائية باستخدام برنامج الحزمة الاحصائية للعلوم الاجتماعية (SPSS) النسخة 20.0.

**النتائج:** كشفت نتائج الدراسة إلى ان اكثر من نصف الطلبة هم من الذكور (57%) عن المرحلة الدراسية الثانية (60,9%) والذين يقيمون في الاقسام الداخلية للطلبة (78,9%) ويدرسون 2-4 ساعات في اليوم (53,1%) وينامون 3-6 ساعات في اليوم (90,6%). طلبة كلية التمريض لديهم مستوى متوسط من الاجهاد النفسي وبنسبة عالية (99,2%). كما كشفت الدراسة عن العوامل المرتبطة بالاجهاد النفسي لدى الطلبة وهي: العوامل البيئية وتشمل، تغير البيئة (85,9%)، عدم كفاية السلامة والأمان (69,5%)، نقص الاماكن الترفيهية (72,7%)، غياب البيئة الهادئة (64,8%)، وعدم توفر المياه الكافية (72,7%)، والعوامل الشخصية الذاتية تشمل الشعور بالغربة (64,8%)، تغير في نمط النوم (78,1%)، وتراجع في الصحة الشخصية (70,3%)، وتشمل العوامل الاكاديمية عدم وجود راحة بين المحاضرات (100%)، عدم التوافق بين وقت الدراسة والعطل (78,1%)، أعباء الدراسة والحصول على درجة أدنى من المتوقع (100%)، عدم التمتع بالدراسة (70,3%)، والإجهاد من التدريب العملي (77,3%)، وتشمل عوامل العلاقات الشخصية الصراع مع أحد المقربين (47,7%) والصراع مع شريك الغرفة (51,6%). **التوصيات:** أوصت الدراسة الحالية الى اهمية إدارة العوامل المختلفة والمرتبطة بالاجهاد النفسي، وتوفير برنامج ترفيهي لتعزيز صحتهم.

### Abstract

**Objectives:** The current study aims at identifying the level of perceived stress among nursing college students and determining the factors associated with stress they have.

**Methodology:** A cross-sectional descriptive study initiated for the period on November 1<sup>st</sup>, 2014 to May 1<sup>st</sup>, 2015. The study has been conducted on the undergraduate nursing college students / University of Baghdad. The sample of the study was consisted of (128) students who were selected purposively. The questionnaire of the study was adopted and modified for the present study which consisted of socio-demographic data and the scale of perceived stress among nursing students. The data have been collected through the utilization of the self administrative questionnaire as a mean of data collection. Statistical analyses were conducted by using statistical package for social science (SPSS) version 20.0.

**Results:** The results of the study revealed that more than half of the students were male (57%) from the second academic year (60.9%) who were resident in students' home (78.9%) and studying 2- 4 hours/day (53.1%) and sleeping 3-6 hours/day (90.6%). Undergraduate nursing students have moderate level with high percentage of 99.2%. The study also revealed the factors associated with stress among the students which are: environmental related factors include, change in the environment (85.9%), inadequate safety and security (69.5%), lack of recreational facilities (72.7%), absence of calm environment (64.8%), and inadequate of water provision (72.7%); intrapersonal related factors include, feeling of homesick (78.9%), change in sleeping pattern (78.1%), and decline in personal health (70.3%); academic related factors include lack of rest between lecture (100%), imbalance between holiday and study time (78.1%), burdens of the study and getting lower grade than anticipation (100%), inability to enjoy the study (70.3%), and stressor of practical training (77.3%); and interpersonal related factors include, fight with close one (47.7%) and conflict with roommate (51.6%).

**Recommendations:** The study recommended for the importance of managing the various factors associated with stress and providing recreational program to promote their health.

**Keywords:** Stress, Associated Factors, Nursing Students, College of Nursing University of Baghdad.

## Introduction

Stress is an emotional reaction that has negative effect on the mental and social health of individuals. Stress is defined by Lewis & Shaw (2007) as "a physiological and psychological responses to an environmental demand that occurs after an individual perceives that they are not able to adequately cope with the present demand"<sup>(1)</sup>.

Students as individuals are subjected to various sources of stress within academic and clinical environment. The students may experience social, emotional, physical and family problems which may lower their academic and learning abilities<sup>(2)</sup>.

It has been reported the increasing levels of stress among undergraduate college students throughout the period of academic years<sup>(3)</sup>. The students who have transition from the school environment into college environment could be psychologically, socially, and academically shocked due to the differences in educational system; the students will confront a new teaching methods, new academic requirement, new types of relations with faculties and other students of the opposite sex. Because of these changes, the students will experience different types of stress and stressors that may have a negative impact on their health and academic performance<sup>(4)</sup>.

A numerous studies have focusing on the exploring of stress among students in baccalaureate nursing education<sup>(5), (6), & (7)</sup>. The studies suggest that undergraduate nursing students suffering from stress due to different types of stressors. The stress among nursing college students can be classified as academic-related stress, clinical-related stress and personal-related stress. The nursing students experiencing stress from lack of knowledge, clinical assignments and overworks, taking care of patients, clinical evaluations and

examination<sup>(8)</sup>. Absolutely, clinical area is one of the major components in nursing education. However, nursing students may experience many challenges or threats in dynamic and complex clinical environments, such as how to use high-tech medical equipment, how to maintain good relationships with clinical staff and instructors, how to manage sudden changes in a patient's condition and how to deal with the demands of patients' relatives<sup>(9)</sup>.

The high levels of stress can effect negatively on the physical and psychological well-being of nursing students. According to Freeburn and Sinclair (2009), the impact of stress has been evaluated on nursing students and the results suggested that perceived stress among nursing students lead to dysfunction at an optimal level and inhibited growth and development. The students with high stress show different emotional, cognitive, and physiological problem. Emotional problems include feeling of indifference, helplessness, and as though they had lost control. The cognitive problems include, low focus and concentration during periods of stress. The physiological problems include weight changes, chest pain, fear, panic, nausea, and lack of sleep<sup>(10)</sup>.

Stress is considered as one of the serious topic in the life of the university students. It has been founded that stress can lead to academic decline, poor relationships with peers and family members and overall dissatisfaction with life<sup>(4)</sup>. Therefore, it's important to explore the factors associated with the stress among nursing students in order to reduce these stressors and promoting their health.

## Objectives of the Study

1. To identify the level of perceived stress among nursing students.
2. To determine the factors associated with stress among nursing college students in Baghdad University.

## Methodology

A cross-sectional descriptive study in which assessment approach is applied in order to achieve the earlier stated objectives. The study was initiated for the period on November 1<sup>st</sup>, 2014 to May 1<sup>st</sup>, 2015. The study has been conducted on the undergraduate nursing students who are studying at College of Nursing/ University of Baghdad. The sample of the study was consisted of (128) students who were selected purposively.

The instrument of the study was adopted and modified for the present study (2) & (11). The questionnaire consisted of three parts: the first contained the covering letter to obtain the student's agreement to participate in the study and their variables; the second part include the scale of perceived stress among nursing students which is consisted of 29 items rated to five levels of likert scale and scored as follows: never (1), almost never (2), sometimes (3), fairly often (4) and very often (5). The level of stress was estimated by calculating the cut of point for the total score as

low=29 -67.5, moderate= 67.6 -96.5 and high = 96.6- 145; the third part of the questionnaire is contained factors induced stress which categorized as: environmental, intrapersonal, academic and interpersonal, each category of these factors is rated into yes (1) and no (0).

The data have been collected through the utilization of the self administrative questionnaire as a mean of data collection. The questionnaire was distributed after being willing to answer the questionnaire and participate in the study; all of the respondents were cooperative with the investigators. Filling the questionnaire takes approximately 20 – 30 minutes.

Statistical analyses were conducted by using statistical package for social science (SPSS) version 20.0. Data analysis was employed through the application of descriptive and inferential statistical approaches which were performed through the computation of the following: frequencies, percentages, and alpha correlation coefficient.

## Results

**Table (1) Nursing Students' Characteristics**

List	Variable	F	%	
1	Gender:	Male	73	57
		Female	55	43
		<b>Total</b>	<b>128</b>	<b>100</b>
2	Students' homes:	Yes	101	78.9
		No	27	21.1
		<b>Total</b>	<b>128</b>	<b>100</b>
3	Academic year:	First	18	14.1
		Second	78	60.9
		Third	25	19.5
		Fourth	7	5.5
		<b>Total</b>	<b>128</b>	<b>100</b>
4	Study Hours:	> 2 hours/day	26	20.3
		2 – 4 hours/day	68	53.1
		5 ≤ hours/day	34	26.6
		<b>Total</b>	<b>128</b>	<b>100</b>
5	Sleeping Hours:	> 3 hours/day	0	0
		3 – 6 hours/day	116	90.6
		7 ≤ hours/day	12	9.4
		<b>Total</b>	<b>128</b>	<b>100</b>

**F: Frequency, %: Percentage**

This table show that more than half of the students were male (57%) from the second academic year (60.9%) who were resident in students' home (78.9%) and studying 2- 4 hours/day (53.1%) and sleeping 3-6 hours/day (90.6%).

**Table (2): Stress Levels among Nursing Students**

Stress' Level	F	%	M.S	SD
Low (29-67.5)*	1	8	1.99	8.8
Moderate (67.6-96.5)**	127	99.2		
High (96.6-145)***	0	0		
<b>Total</b>	<b>128</b>	<b>100</b>		

F: Frequency, %: Percentage, M.S: Mean of scores;, SD: Standard deviation, \*,\*\*, & \*\*\*: Cut off points

This table shows that undergraduate nursing students have moderate level with the large percentage of 99.2%.

**Table (3): Environmental Factors Associated With Stress (N=128)**

List	Environmental Factors	F	%
1	Change in living environment	110	85.9
2	Inadequate safety and security	89	69.5
3	Inadequate services in the dinning room	28	21.9
4	Lack of recreational facilities	93	72.7
5	Lack of laundry services	43	33.6
6	Absence of calm and quite environment	83	64.8
7	Unexpected weather factors	30	23.4
8	Inadequate provision of electricity	56	43.8
9	Inadequate provision of water	93	72.7

F: Frequency, %: Percentage

The findings of this table revealed the number of students who perceived environmental stressors; 85.9% of them perceive living environmental change, 69.5% of them perceive inadequate safety and security, 72.7% perceived lack of recreational facilities, 64.8% of them perceive the absence of calm environment and 72.7% of them perceive the inadequate of water provision.

**Table (4): Intrapersonal Factors Associated With Stress (N=128)**

List	Intrapersonal Factors	F	%
1	Change in eating pattern	56	43.8
2	Think about engagement and marriage	1	0.8
3	Feeling of homesickness in hostel	101	78.9
4	Change in sleeping pattern	100	78.1
5	Decline in personal health	90	70.3
6	Death of a relative or significant person	65	50.8
7	Financial problems	65	50.8

F: Frequency, %: Percentage

This table revealed the number of students who perceived intrapersonal stressors; the majority of them were perceived feeling of homesick (78.9%), change in sleeping pattern (78.1%), and decline in personal health (70.3%).

**Table (5): Academic Factors Associated With Stress (N=128)**

List	Academic Factors	F	%
1	Lack of rest between lectures	128	100
2	Imbalance between holiday and study time	100	78.1
3	Burdens of the study	128	100
4	Poor concentration on the study	56	43.8
5	Poor satisfaction with classroom performance	89	69.5
6	Getting lower grade than anticipation	128	100
7	Inability to enjoy the study	90	70.3
8	Understanding difficulty of teachers' language during lecture	40	31.3
9	Poor relationship with teacher	1	8
10	Argument with the teacher	27	21.1
11	Practical training	99	77.3
12	Missing of many lecture	55	43.8

F: Frequency, %: Percentage

This table revealed the number of student who perceive academic stressors; all of them (100%) perceive the lack of rest between lecture, 78.1% of them experience the imbalance between holiday and study time, all the student (100%) perceive the burdens of the study and getting lower grade than anticipation, 70.3% of them unable to enjoy the study and 77.3% perceive the stressor of practical training.

**Table (6): Interpersonal Factors Associated With Stress (N=128)**

List	Interpersonal Factors	F	%
1	Change in social activities	37	28.9
2	Fight with close one	61	47.7
3	Lack of cooperation from friends	30	23.4
4	Lack of intimate and close friends	27	21.1
5	Conflict with roommate	66	51.6

F: Frequency, %: Percentage

This table revealed the number of students who perceive interpersonal stressors; the high percentages were 47.7% to fight with close one and 51.6% perceive the conflict with roommate.

## Discussion

It has been known out of the analysis of the students' variable in Table (1) that more than half of them were males from the second academic year who were resident in students' homes and studying 2-4 hours/day and sleeping 3-6 hours/day. The finding of gender indicates the interest of the male students to engage in nursing studies, this interest can be explained by the opportunities for getting a job especially that the government is providing central employments for the alumnus in comparison with other. On the other hand the high male student may be also interpreted by the variable of residency which indicated that the majority of them were resident at students' homes. The study hours and sleeping hours indicated that the students getting their enough time for studying and sleeping. Their enough studying may be explained by their ability to manage their time in studying. The indicator of good health may tell us the enough sleeping hours among the students which reflected by their ability to cope with stress they perceived. A study presented supportive evidence that found<sup>(12)</sup> similar results except the variable of gender which was different from their<sup>(13)</sup>.

The Table (2) shows that nursing students have moderate level of stress. The nursing student's perceived stress related to various stressors; the moderate level of stress among nursing student could be explained that students confront daily challenging through the period of their academic life. These daily challenging is related to the academic requirements such as clinical assignments and evaluations, practical training in the hospitals, reports, daily assessment and written exams. In addition to these requirements, they may perceive stress due to the general situation that the country had witness considering that most of them are living a way from their families. Otherwise, most of the students are worrying about their future. However, it might be difficult to compare

stress levels between different populations and different situations. A study presented supportive evidence that found nursing students have moderate to high level of stress<sup>(14)</sup>.

Regarding environmental factors associated with stress, the analysis in Table (3) show that the factors of change in living environment, inadequate safety and security, lack of recreational facilities, absence of calm environment and inadequate of water provision are highly associated with stress among the students. The environmental change may be related to the culture differences among the students in which they are unaccustomed and also to the safety and security factors. The lack of basic services including water supply are important factors that affect of human health, therefore, we see that lack of water is associated with students' stress. The absence of calm environment is reflected by the large number of the residents in the students' homes and also the small area of the college considering the geographical location which prevents the availability of calm environment. A study presented supportive evidence that found similar findings<sup>(2)</sup>.

Table (4) revealed the number of students who perceived intrapersonal stressors; feeling of homesick, change in sleeping pattern, and decline in personal health are the most intrapersonal factors associated with stress. Such finding may be interpreted that most of the students are a way from their families in which they still thinking about them. According to our culture, the family system is complicated in comparison to the family system in the western countries. The children are still in attachment with their parents until they married. Due to this change the students will develop an emotional reaction which may affect their health and quality of life evidenced by their declining in health and changing sleeping pattern. A study presented supportive evidence that found related findings.



Regarding academic factors (Table 5); the lack of rest between lecture, the imbalance between holiday and study time, the burdens of the study and getting lower grade than anticipation, inability to enjoy the study and practical training are highly associated with stress among the students. Experiencing stress among college students is related to academic requirements, support systems, and ineffective coping skills. There are many explanations for students' stress. First, psychological adjustment the students have to make in the college environment. Second, because of the studies overload, interpersonal relationships will be affected. Third, housing arrangements and changes in lifestyle. All these factors have been found to be responsible for stress within academic setting<sup>(16)</sup>. In addition, sudden holidays due to national occasions and bad weathers may affect the students to balance between their holiday and studying time. A study presented supportive evidence that found academic factors are more common associated with the stress of nursing students.<sup>(17)</sup>

The findings in Table (6) revealed fighting with close one and the conflict with roommate were the major problems that are associated with stress related to interpersonal factors. These conflict may be arises due to the different between cultures among the students. The college environment is different from school environment, in which different cultures will be meeting in the college; this differentiation may result in misunderstanding among the students that lead to conflict. A study presented supportive evidence that found student are engage in such conflict which is accompanied by stress among them<sup>(2)</sup>.

### Conclusions

- (1) Nursing students experiencing moderate level of stress related to different stressors.

- (2) Academic factors are highly associated with stress among nursing college students.

### Recommendations

- (1) The importance of managing the various factors associated with stress through active participation of university and students.
- (2) Students should be engage in recreational program to promote their health and reducing stress.

### References

1. Shultz M.E. (2011). *Factors Related to Stress in Nursing Students* (Thesis, College of Nursing and Burnett Honors College, University of Central Florida). Retrieved from <http://medind.nic.in/nad/t11/i1/nadt11i1p12.pdf>.
2. Sharma N. & Kaur A. (2011). Factors Associated with Stress among Nursing Student, *Nursing and Midwifery Research Journal*, 7(1): 12-21.
3. American College Health Association. (2009). American College Health Association – National College Health Assessment Spring 2008 Reference Group Data Report (abridged). *Journal of American College Health*, 5(75), 477-488.
4. Thawabieh A. & Qaisy L. (2012). Assessing Stress among University Students, *American International Journal of Contemporary Research*, 2(2): 110-116.
5. Junious D, Malecha A, Tart K, & Young A. (2010). Stress and Perceived Faculty Support among Foreign- Born Baccalaureate Nursing Students. *J Nurs Educ.*, 49(5):261–270.
6. Wells M. (2007). Dreams Deferred but not Deterred: A Qualitative Study on Undergraduate Nursing Student Attrition. *J Coll Stud Ret.*, 8(4): 439–455.

7. Yucha C, Kowalski S. & Cross C. (2009). Student Stress and Academic Performance: Home Hospital Program. *J Nurs Educ.*, 48(11):631–637.
8. Jimenez C., Navia-Osorio P. & Diaz C. (2009). Stress and Health in Novice and Experienced Nursing Students. *J Adv Nurs.* 66(2):442–455.
9. Lin, C., Perceived stress and coping strategies of baccalaureate nursing students in clinical practice, A Thesis Submitted for the degree of Master of Nursing, University of Hong Kong, 2006, p. 13.
10. Freeburn, M., & Sinclair, M. (2009). Mental Health Nursing Students' Experience of Stress: Burdened by a Heavy Load. *Journal of Psychiatric & Mental Health Nursing*, 16(4), 335-342.
11. Sheu SL, Lin HS, Hwang SL. (2002). Perceived Stress and Physio-Pscho-Social Status of Nursing Students during Their Initial Period of Clinical Practice: The Effect of Coping Behaviors. *International Journal of Nursing Studies*, 39: 165-175.
12. Labrage L.J. (2013). Stress, Stressors, and Stress Responses of Student Nurses in a Government Nursing School. *Health Science Journal*, 7(4): 424-435.
13. Khater W.A., Akhu-Zaheya L.M. &Shaban I.A. (2014). Sources of Stress and Coping Behaviors in Clinical Practice among Baccalaureate Nursing Students. *International Journal of Humanities and Social Science*, 4(6): 194-202.
14. Eswi A, Radi S & Youssri H. (2013). Stress/Stressors as Perceived by Baccalaureate Saudi Nursing Students, *Middle-East Journal of Scientific Research*. 14(2): 193-202.
15. Hudd S et al. (2000). Stress at college: Effects on health habits, health status and self-esteem, *College Student Journal*. 34:€ 217- 227.
16. Bataineh M. (2013). Academic Stress Among Undergraduate Students: the Case of Education Faculty at king Saud University, *International Interdisciplinary Journal of Education*, 2(1): 82-88.
17. Moshin, S., H, Shahid, M. Samina & T. Chandrashekhar, (2010). Perceived stress, sources and severity of stress among medical undergraduates in Pakistani medical school. *BMC Med. Edu.*, 10: 2-8.