Perceived Stress/Stressors among University Nursing Students

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Abstract

Background: Adolescents studying nursing sciences are considered a demanding phenomenon. As students start to master independency, they are also struggle participating to save other lives, which can lead to feeling of stress. **Aim**: Was to assess the perceived stress/stressors among university nursing students. **Design**: A descriptive exploratory design was utilized. **Subjects and Setting**: A convenient sample consisted of 219 of nursing students enrolled in the Faculty of Nursing of October 6 University at Giza governorate during the academic year 2020-2021. **Tools:** Three tools were used in this study; Socio-demographic questionnaire to assess socio-demographic characteristics of the nursing students, Socio-demographic characteristics of students' parents, Perceived Stress Scale to assess the stress levels among the students, and Perceived Stress Scale to assess the stressors experienced by the students. **Results**: Revealed that most of the studied students had moderate and high levels of stress and there was a statistically insignificant relationship between Perceived Stress levels and the students' socio-demographic characteristics. **Conclusion:** Nursing students had moderate to high levels of stress, and the major stressors experienced by the students were related to academic factors followed by the clinical factors. **Recommendations**: Mental health counseling unit is vitally needed to be established and to be available for students at the Nursing Faculty.

Keywords: Stress, Stressors, Nursing Students

Introduction

College student's life is full of stress, life often throws students off track with unexpected breakups, difficult tasks beyond their capabilities and other situations that suddenly force them to make decisions about their future, all of these events can stress them enormously. As well, college undergraduate students experience varying levels of stress because of academic demands, transitioning to a new stage of life and the financial struggles **(Roming & Howard, 2019).**

Nursing students stress is higher than those in other healthcare related fields, and higher perceived levels of stress during academic life leads to higher drop-out rates, vulnerability to early-career burnout, and higher job turnover rates **(Vore, McGee & Henderson, 2019).**

Prolonged stress has been documented to have negative effects on nursing students' learning, academic performance, and well-being **(Khater, W. A., Akhu-Zaheya, L., & Shaban, I. A. (2014).**

Stressors perceived by nursing students in their clinical learning environment include caring for patients, assignments and workload, and lack of knowledge and skills **(Gurková & Zeleníková, (2018).**

Furthermore higher grades competition, teachers and family expectation in addition to the insufficient counseling services have the potentiality to increase the stress levels in students and it will affect the students' performance in their academia leading to foster unhealthy behaviors like smoking, substance abuse, illegal activities and unmoral issues, **(Sajid, Hamid, Sabih & Sajid, 2017).**

Anxiety and depression are linked to stress: these three health problems lead to poor psychological wellbeing that effect on learning and limit the academic performance of students, lower productivity, increase suicidal thoughts, and minimize quality of life **(Shi, 2021).**

Perceived stress negatively impacts the student's confidence and motivation to learn, leading to overwhelming feelings of being unprepared for the challenges of professional nursing role **(Grobecker, 2016).**

Significance of the study

World Health Organization (WHO) has branded the stress as "Health Epidemic of the 21 century" *(Fink,* **2017***).* Many studies found that, nursing students have high level of stress compared to other students *(Shadifat, Jamama & AlAmer, 2018),* as nursing is known to be a stressful profession, as it necessitates constant interaction with different individuals in an environment that is described as highly stressful *(Algaralleh, Altwalbeh & Alzayyat, 2019).* Stressful experiences and its consequences make nursing students develop different coping strategies to survive and withstand these situations but, if the use of coping strategies are less effective, then students are vulnerable to various conditions as sleep disorders, eating disorders, use of illegal substances, suicide, absenteeism, and psychosomatic illness *(Devcota, Shrestha, 2018).* Hence, this study will assess the perceived stress levels and stressors among university nursing students.

Aim of the study

This study aimed at assessing the perceived stress/stressors among university nursing students that will be achieved through answering the following research questions:

- What are the levels of stress perceived by university nursing students?
- What are the types of stressors commonly perceived and experienced by the university nursing students?
- Is there a relationship between the socio-demographic data and the perceived stress and stress levels among university nursing students?

Subject and Methods
I. Technical Design:

The technical design involves the research design, setting, subjects of the study, and the tools of data collection.

Research Design: A descriptive exploratory design was used in this study.

Setting: This study was conducted at the Faculty of Nursing of October 6 University at Giza governorate during the academic year 2020-2021.

Subject: A convenient sample of all available nursing students enrolled the faculty of nursing at the academic year 2020-2021, all of them (219) were accepted to participate in the study.

The Sample size was calculated using open epi, version 3, Open-source calculator and based on a study carried out by *Amr,* **El-Gilany, El-Moafee, Salama and Jimenez (2011).** A sample size is sufficient to achieve study objectives; given that the hypothyzed frequency of outcome factor is 40.2%, population size 533, margin of error +/- 5 and confidence level 95.0%.

Sample size n = [DEFF*Np(1-p)]/ [(d2/Z21-α/2*(N-1)+p*(1-p)]

Population size (for finite population correction factor or fpc) (N):	533
Hypothesized % frequency of outcome factor in the population (p):	40.2%+/-5
Confidence limits as % of 100(absolute +/- %) (d):	5%
Design effect (for cluster surveys-DEFF):	1
Sample Size(n) for Various Confidence Levels	

Confidence Level (%)	Sample Size
95%	219

D) Tools of Data Collection:
Data was collected using the following tools:
Part one: Socio-demographic questionnaire:
The socio-demographic questionnaire includes two sections;

The first section: The student's socio-demographic characteristics as; age, sex, nationality, family residence, residence during study, family income, academic level, clinical course, last Grade Points Average and history of chronic disease.

The second section: The student's parent socio-demographic characteristics as; mother's education, father's education, mother's occupation, father's occupation, mother's history of chronic diseases or disabilities and father's history of chronic disease or disabilities.

Part Two: Perceived Stress Scale (10 items):

Perceived stress scale (10 items) was used to assess the perceived stress levels among students which were originally developed by **Sheldon Cohen (1988)**, it is considered the most widely used psychological instrument for measuring the perception of stress. It is a measurement of the degree to which situations in one's life are considered stressful. Items of this scale were designed to tap how unpredictable, uncontrollable, and overloaded respondents find their lives.

❖ **Scoring System:**

It is a 10 items scales; each item were scored on a 5-point Likert scale, according to the frequency which those situations are perceived as stressful from (0) never, (1) almost never, (2) sometimes, (3) fairly often and (4) very often. Scores range from 0 to 40.

Scores are obtained by reversing responses (e.g., 0 = 4, 1 = 3, 2 = 2, 3 = 1 & 4 = 0) to the four positively stated items (items 4, 5, 7 & 8) and then summing across all scale items. Higher scores indicating higher perceived stress **.**

Detailed scoring system was calculated based on the following criteria:

Stress levels	Scores range
Mild	0 – 13
Moderate	14-26
High	27-40

Part Three: Perceived Stress Scale:

Perceived stress scale used to assess the stressors among students, it was originally developed by **Sheu, Lin, and Hwang (1997)** and had been adapted by **Mohamed and Ahmed (2012).** The scale consists of 42-items and then modified by the researcher by removing 6 repeated sub items (unfamiliar with the patient diagnosis and treatment, assignment and workloads stress from experience difficulties in changing from the role of a student to that of a nurse , availability of transportation at the time of clinical practice, lack of continuous evaluation on students' performance and worry about not oriented to the departments of the hospital before starting clinical practice) and adding 2 new sub items (Online lectures and exams during novel Covid-19 and Stressed by clinical hospital training during novel Covid -19) to match with culture of the study subjects and setting.

The total number of the scale became 38 items grouped into 2 main factors as the following:
A) Clinical Environmental Factors (20 items) which include the following sub items of stressors namely; Hospital infrastructure (5 items), Hospital Staff (5 items), Patient care (5 items), Professional Skills (5 items)
B) Academic Environmental Factors (18 items) which include the following sub items of stressors namely; Practical Labs (6 items), Peers and Daily life (4 items), Academic Staff (8 items)

❖ **Scoring System:**

Responses were measured on a 4-point Likert scale. Each item is scored according to the frequency which those situations are assessed as stressful starting from (0) never, (1) low and exactly (2) and (3) high.

The total score ranges between 0 and 114. Students scoring system will be as the following: 0-<57 scores for low stress, 57-<80 scores for moderate stress and 80-114 for high stress.

The detailed scoring system for the **Clinical Environmental Factors** will be as

follows: Hospital Infrastructures, Hospital Staff, Patient Care, Professional skills; the score generally ranged from 0-15. For the ***Academic Environmental Factors*** will be as follows: Practical Labs; the score generally ranges from 0-18, Peers and daily life; the score generally ranges from 0-12, Academic staff; the score generally ranges from 0-24.

Detailed scoring system was calculated based on the following criteria:

Stress levels	Scores range
Low stress	<50%
Moderate stress	50-<70%
High stress	≥ 70 %

II- Operational design:

The operational design includes; a preparatory phase, content validity, reliability, pilot study and fieldwork.

A) The preparatory Phase:

This phase of the study involved reviewing the related recent national and international research topic literatures to develop the study tools and test their validity and reliability and to gain a clear conceptualization of the study topic.

B) Content validity and Reliability:
Content validity:

The validity of the tools was tested for content validity by five experts in the field of Psychiatric-Mental Health Nursing in Ain Shams University. The necessary modifications and omission of some details were done by the researcher as the following:

1. The tool was categorized into two main items (Clinical Environmental Factors and Academic Environmental Factors).
2. The items were reorganized based on the modified categorization into 7 main items that includes the 38 sub items as following;
A) Clinical Environmental Factors represented through 4 main items; Hospital Infrastructure (5 sub items), Hospital Staff (5 sub items), Patient Care (5 sub items)and Professional Skills (5 sub items).
B) Academic Environmental Factors represented through 3 main items ; Practical Labs (6 sub items), Peers & Daily Life (4

sub items) and Academic Staff (8 sub items)
3. Some terms were modified as using the term Academic Staff instead of using the word teachers

4. Some phrases were modified by deleting 6 sub-items which can be considered as interrelated or repeated terms or statements which can leaves the study subject with feeling of conflict as; (Confrontation with new diagnosis and an unfamiliar with the patient diagnosis and treatment), (too much responsibilities or duties on students during clinical practice and stress from assignment and workloads), (unfamiliar with professional nursing roles and experience difficulties in changing from the role of a student to that of a nurse) , (transportation between college and hospital and availability of transportation at the time of clinical practice), (lack of orienting students about methods of evaluation and marks distribution and lack of continuous evaluation on students' performance) and (Unfamiliar with the ward facilities and worry about not oriented to the departments of the hospital before starting clinical practice).

5. In the items of Academic Staff, there were two added statements (37 and 38), which were ; Online lectures and exams during novel Covid-19 and Stressed by clinical hospital training during novel Covid -19.

Content Reliability:

Reliability analysis was done for Perceived stress scale 38 items, it was found to be 0.955; in addition to that, the Cronbach's alpha coefficient for the perceived stress scale 10 items was found to be 0.908. Moreover, the Cronbach's alpha coefficient for the two scales added together was 0.960.

Reliability Statistics

Cronbach's Alpha	N of Items
.955	38

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.908	10

Reliability Statistics	
Cronbach's Alpha	**N of Items**
.960	48

C) A pilot study:

The pilot study was conducted in the beginning of the summer vacation of the academic year 2020-2021,it was conducted on a sample of 10 % of the total study sample (22 nursing students). The pilot study was conducted to confirm clarity, feasibility and applicability of the tool and to estimate the time required for filling the online questionnaire. The tool was applicable and clear for the sample in the pilot study and there was no modification done. The time needed for filling the tool was ranged between 10 and 20 minutes. Those pilot sample were included in the main study sample.

D) Field Work
1- The assessment phase:

The assessment phase was done by obtaining official permission from the dean of the faculty of nursing at October 6 university to conduct the study, as well as, the researcher can get access to obtain and contact with the students through all the possible channels, and asking for help of the academic staff of different collage levels and specialties to enable safe, and sound communication with students through social or official channels that was established to enable the online education during the epidemic time of Covid-19.

2- The working phase:

The working phase was executed at the end of August 2021 as the students already started their summer vacation; and the time was carefully selected to avoid to trigger an additional sources of stress for the students.

Following the polices and exceptional procedures as precautionary measures that been established by the World Health organization (WHO), Egyptian Ministry of Health and Ministry of Higher Education and Research

regarding Epidemic Covid-19 polices, it was more suitable to prepare and distribute an electronic forum of the study tools using the online Google Forms and to ensure the principles of confidentiality of the patient data as the official mail is not required to fill the Form.

The researcher initiated an online meetings with each clinical groups of the students from the ; 1st, 2nd, 3rd and 4th level at the academic year 2020-2021 through the recommended and established E-learning virtual classes that been used as a communication channels for education during the epidemic time.

The researcher explained the aim of this study and got an oral and online signed approval from the studied students to participate in this study, and then the researcher clarified the tool and answered any question to avoid any misunderstanding such as defining the meaning of any item of the scales. Each student was given the opportunity to fill-in the tools at any suitable time. The researcher contacts as telephone number, socializing mobile Application, and Mail address are available at any time for any further queries by the study sample.

The form was distributed through the formal students groups as Microsoft teams and whats-app groups due to the home quarantines policies, by collaboration with the academic staff of each course.

Out of 533 students registered at the faculty of nursing, 219 student's responses were received giving an overall response rate of 41%.

3. Administrative design:

The Faculty of nursing at October 6 university received an official letter from the Dean of the Faculty of Nursing, Ain Shams University, asking authorization to perform the study and to obtain permission and assistance for data collection, this letter includes the study's aim and a copy of the data collection tool.

Ethical considerations:

The research approval was obtained from the Ethical Committee in the faculty of Nursing, Ain Shams University before starting the study. The researcher assured anonymity and confidentiality of the subjects, data through clarifying that all information will be used for scientific research only. Voluntary participation were explained to the students and that they have the right to withdraw from the study at any time without any kind of penalty.

4. Statistical design:

Data Management and Statistical Analysis:

The collected data were revised, coded, tabulated, and introduced to a PC using statistical package for social sciences (IBM SPSS 20.0). Data were presented and suitable analyses were done according to the type of data obtained for each parameter.

I- Descriptive Statistics:

Mean, Standard deviation (+ SD) and range for parametric numerical data, while Median and Interquartile range (IQR) for non-parametric data.

II- Analytical Statistics:

1. Fisher's Exact Test was used for qualitative data as (20.0%) of the cells or more had expected count less than 5.
2. Pearson correlation coefficient was used to demonstrate correlation between two continuous quantitative variables.

P-value: Level of significance:
- P>0.05: Non significant (NS)
- P<0.05: Significant (S)
- P<0.01: Highly significant (HS)

Results:

Table (1): The table shows that, 54.3% of the studied students were between 18-<21 years old, 64.4% were males, 98.6% were Egyptians, 53.0% were urban, living in private homes during study meanwhile, 79.9% had satisfactory family income and 35.6% were in the first and the fourth years. 42.5% had clinical course in fundamental II, 12.3% had psychiatric nursing, 9.1% had community nursing and critical and emergency nursing course, 90.9% had last GPA from 2 to 4 and 91.8% do not had history of chronic diseases.

Table (2): The table shows that, 90.0% and 3.2% had moderate and high levels of stress respectively as measured by Perceived Stress Scale – 10 Items.

Figure (1): The figure shows that (29.2% &2.3%) of the studied students had moderate and high levels of stress respectively as regard sources of stress related to clinical environmental factors; while (41.6% & 3.2%) had moderate and high levels of stress respectively related to sources of stress related to academic environmental factors.

Table (3): The table shows that, professional skills and patient care are the highest stress levels (10.5% & 9.1% respectively) among the studied students related to Clinical Environmental Factors. While practical labs, peers and daily life and academic staff are the most important sources of stress related to Academic Environmental Factors among studied students; (13.7%, 12.3% & 11.4%) respectively.

Table (1): Socio-demographic Characteristics of The Studied Students (N=219).

	Variables	No.	%
Age	18-<21 Years	119	54.3%
	21-<24 years	94	42.9%
	≥24 Years	6	2.7%
Sex	Male	141	64.4%
	Female	78	35.6%
Nationality	Egyptian	216	98.6%
	Non-Egyptian	3	1.4%
Family Residence	Urban	116	53.0%
	Rural	103	47.0%
Residence during study	With Family	75	34.2%
	Campus	28	12.8%
	Private Home	116	53.0%
Family income	Satisfactory	175	79.9%
	Unsatisfactory	44	20.1%
Academic Level	First	78	35.6%
	Second	43	19.6%
	Third	20	9.1%
	Fourth	78	35.6%
Clinical Course	Fundamental I	15	6.8%
	Fundamental II	93	42.5%
	Medical Nursing	16	7.3%
	Surgical Nursing	2	0.9%
	Pediatric Nursing	10	4.6%
	Obstetric Nursing	16	7.3%
	Critical and Emergency Nursing	20	9.1%
	Psychiatric Nursing	27	12.3%
	Community Nursing	20	9.1%
Last GPA	<2	20	9.1%
	2 to 4	199	90.9%
History of Chronic Disease	No	201	91.8%
	Yes	18	8.2%

Table (2): Perceived Stress Levels as Perceived by The Studied Students (N=219).

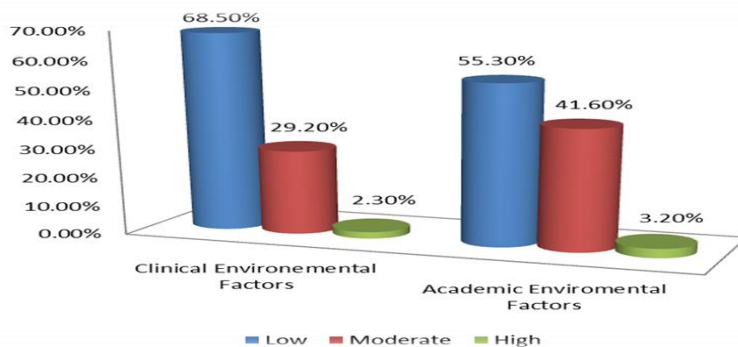| Variables	Low		Moderate		High	
	No.	%	No.	%	No.	%
Perceived Stress Scale – 10 Items	15	6.8%	197	90.0%	7	3.2%

Stressors among The Studied Students:

Figure (1): Clinical and Academic Environmental Factors among The Studied Students as Measured by Perceived Stress Scale.

Table (3): Sources of Stress related to Clinical and Academic Environmental Factors among The Studied Students (N=219).

Variables	Low		Moderate		High	
	No.	%	No.	%	No.	%
Clinical Environmental Factors	150	68.5%	64	29.2%	5	2.3%
Hospital Infrastructure	147	67.1%	55	25.1%	17	7.8%
Hospital Staff	171	78.1%	36	16.4%	12	5.5%
Patient care	167	76.3%	32	14.6%	20	9.1%
Professional Skills	133	60.7%	63	28.8%	23	10.5%
Academic Environmental Factors	121	55.3%	91	41.6%	7	3.2%
Practical Laboratories	132	60.3%	57	26.0%	30	13.7%
Peers and Daily Life	150	68.5%	42	19.2%	27	12.3%
Academic Staff	148	67.6%	46	21.0%	25	11.4%

Discussion:

During the period of professional education, the university nursing students are faced with a new environment that is often quite different and distant from their familiar contexts, where the need to adapt to new academic requirements and obligations can contribute to increase their stress levels **(Bublitz, Guido, Lopes & Freitas, 2016).**

During nursing education and training, nursing students are frequently exposed to various stressors which may directly or indirectly impede their learning and performance. The nature of clinical education presents challenges that may cause students to experience stress. Moreover, the practical components of the program which is important in preparing students to develop into professional nurse role by its nature have made the program even more stressful than other programs **(Labrague, 2013).**

The aim of this study was to assess the perceived stress/ stressors among university nursing students.

Regarding to the socio-demographic characteristics of the studied students and their parents, the current study findings revealed that, slightly more than half of the studied students age were between 18 and 21 years, the majority were males and Egyptians, urban, living in private homes during study and nearby to four fifth had satisfactory family income. The results also concluded that, slightly more than one third of the studied students were in the first and the

fourth years with satisfied GPA (from 2 to 4) and the majority had no history of chronic diseases in addition to that, more than half of the students' mothers and fathers were highly educated, mothers were housewife meanwhile, more than two thirds of the students' fathers were employees and the majority of students' mothers and fathers have no chronic diseases or disabilities.

Regarding perceived stress levels among the studied nursing students, the current study showed that, the studied students had moderate and high levels of stress. This may be due to the demanding nature of nursing curricula that go beyond student abilities and affect students' coping, cognitive and emotional capacities. These findings are congruent with the study of **Kumar et al., (2018)** who found in their study of the prevalence of stress among paramedical students in Cuddalore Distric, India that, most of the student's participants had moderate stress.

In Filipin, **Labrague (2013)** illustrated in the study of stress, stressors and stress responses of student nurses in a governmental nursing school that, most of the student nurses experienced moderate level of stress.

In contrast to the study results **Mohamed et al.,(2012)** have revealed in their study of perception of nursing students towards clinical stressors in the faculty of applied medical science – AL Jouf university Saudia Arabia that, the majority (about three –fourths) of students had high level of stress.

The current study findings proved that, there was a statistically insignificant relationship between perceived stress levels and their socio-demographic characteristics. This may be due to the time the students asked to participate in the study, as it was carried out during the summer vacation and the PSS (10 items) asked the students to score the degree to which situations in one's life are considered as stressful in light of the last month experience where there is lockdown of the academic life and its related stressors.

Along with the study findings, **Sheroun et al., (2020)** reported in their study which aimed to assess the perceived stress and coping strategies among baccalaureate nursing students of selected colleges in Pune during COVID-19 pandemic lockdown that, none of the socio demographic variables showed association with the PSS score.

Differently **Masha'al et al., (2020)** showed in their study of distance learning–related stress among undergraduate nursing students during the COVID-19 pandemic that, there was a statistically significant difference in stress levels were found based on some of the socio-demographic characteristics of the students.

In the study of **Jia et al., (2018)** who described in their study of prevalence and determinants of perceived stress among undergraduate students in a Malaysian University that, the female students were almost twice more likely to be stressed compared to the male students.

According to the study of **Aslan and Pekince (2021)** about nursing students' views on the COVID-19 pandemic and their perceived stress levels in Turky reported that, there was a statistically significance relation between socio-demographic characteristic of the studied students and perceived levels of stress in term of age and sex, as the perceived stress level of students under 20, was higher and the female students perceived higher level of stress rather than male students

As regard the perceived stressors among the nursing students, the present study concluded that, the academic environmental factors are more stressful than the clinical environmental factors. This could be attributed to the fact that they may be loaded with academic demands as assignments, studying lectures, quizzes, home works, mid-terms exams and they are not able to finish their work on time.

This findings is parallel to the conducted systematic review of the scientific literature on stressors among nursing students since 2010 by **Pulido-Martos et al., (2012)** who reported that, the most common sources of stress were relate to academics sources followed by other clinical sources.

Divergent with the study findings , **Labrague et al., (2017)** concluded in their study of a literature review on stress and coping strategies in nursing students and **Gurková et al., (2018)** in their study of nursing students' perceived stress, coping strategies, health and supervisory approaches in clinical practice in Slovak and Czech reported that, the existed evidences and results had identified two major sources of stress among nursing students: academic and clinical stressors, with the latter being perceived more intensely by nursing students at all levels of study.

Relating to the stressors dimensions, the current study showed that; practical laboratories, peers and daily life, academic staff are the most important sources of stress related to academic environmental factors among the students. These results may be due to the demanding and heavy responsibilities of the clinical laboratories leading to lack of free times for extracurricular activities, in addition to the feelings of insecurity that may emerge from the students perceptions of a lack of ability to meet the demands of professors in regard to practical activities, lead students to become overwhelmed by the idea that their practice is insufficient for success.

Another possible explanation is that in order to enhance teaching quality, clinical instructors might need formal training plan with an in-depth orientation to the educational program, anticipated clinical outcomes, required assignments and report, and time management plan, which reflect the complexity of the nursing program and affect the quality of the student -teacher relationship.

In long with the study findings, **Bhurtun et al., (2021)** explained in their study of

changes in stress levels and coping strategies among Finnish nursing students that, along with all stresses, stress from peers and daily life and stress from teachers and nursing staff were greater for students in their second year of study.

Divergently the assignments and workload had been perceived as the highest source of stress in the study conducted by **Hamaideh et al., (2017)** of nursing students' perceived stress and coping behaviors in clinical training in Saudi Arabia.

The study clarified that that, the professional skills and patient care imposes the highest stress levels related to clinical environmental factors. that may be due to nursing students might meet a wide range of patients with complex bio-psychosocial problems and needs, which requires nursing students to be able to develop and maintain a therapeutic relationship and to possess the knowledge and skills necessary to deliver effective nursing care to these patients.

Consistent with the study results, **Chen et al., (2014)** clarified in their study of predictors of Taiwanese baccalaureate nursing students' physio–psycho-social responses during clinical practicum revealed that, the students rated stress from lack of professional knowledge and skills and stress from taking care of patients as the top stressors.

In contrast **Hamaideh et al., (2017)** determined in their study of nursing students' perceived stress and coping behaviors in clinical training in Saudi Arabia that, the lowest levels of stress were perceived from lack of professional knowledge and skills and from taking care of patients.

Conclusion:

Based on the study findings, the study concluded that, the studied nursing students had moderate and high levels of stress. The practical laboratories, peers and daily life and academic staff are the most important sources of stress related to academic environmental factors

among the students. While the professional skills and patient care imposes the highest stress levels related to clinical environmental factors among the students. Furthermore there was a statistically insignificant relationship between perceived stress levels and the studied student's socio-demographic characteristics. Finally, there is a statistically significant relationship between stress levels related to clinical environmental factors and students' clinical courses; where obstetric nursing followed by pediatric nursing had the highest stress levels.

Recommendations:

Guidance and counseling unit should be part of the faculty management system, as students can discuss issues affecting them and to organize a stress management forum and campaign to help address stress among students.

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