

ORIGINAL ARTICLE

Assessment of Clinical Setting Related Stressors as Perceived By  
Nursing Students in Najran University KSA

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ABSTRACT

Baccalaureate nursing students often experience high levels of stress during training that may result in psychological or emotional impairment during their professional life ultimately affecting the quality of patient care they provide to assess the clinical setting related stressors perceived by nursing students in Najran University. Descriptive research design study was used to assess the clinical setting related stressors among nursing students at the University of Najran. The study was conducted among nursing students (female and male) at Najran University, Kingdom of Saudi Arabia. Questionnaire composed of three parts was used for data collection consisted of socio-demographic characteristics. perception of nursing students about clinical practice. Perceived Stress Scale (PSS) among nursing students about (29.8%) anxiety was the most common emotional symptoms that nursing students suffered, (46.1%) of them had moderate total stress level, and there were a highly statistically significant between stress scale and student opinion about clinical practice, enjoyable clinical experience and prepared for the clinical practice. Less than half of nursing students had moderate total stress level. A need to implement comprehensive stress management programs for students during their initial practices and continuing until graduation.

**Keywords:** *Nursing students, Stress, Clinical practice*

Received 24.05.2023

Revised 11.07.2023

Accepted 21.08.2023

**How to cite this article:**

Amna Mohammed Idris, Abdalla Mohamed Ahmed Osman, DaifAllah D. Althubaity, Nahid Khalil Elfaki, Samah Ramadan Elrefaey, Elwaleed Idris Sagiron, Dr. Yahya Hussein Ahmed, Zeinab Taha Omer, Wargaa Hashim Hussein Taha, Leila Abdallah Elawad, Aida Ahmed Fadlala, Mujahed Ali Alkhadher<sup>1</sup> and Nahla Elradhi AbdIbrahim- Assessment of Clinical Setting Related Stressors as Perceived By Nursing Students in Najran University KSA. Adv. Biores. Vol 14 [5] September 2023; 29-37

INTRODUCTION

Stress is a particularly important issue in education because it has the potential to impede learning and performance. Empirical research supports the view that nursing students suffer from stress in their clinical practice. Without doubt, clinical practice is an important component in nursing education. However, students may face 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. Students who experience psychological distress are more likely to experience depressive symptoms [1]. Clinical practice is an essential part of nursing education as it provides nursing students the chance to apply knowledge as well as developing their psychomotor skills. Nursing research supports that nursing students identify the practicum portion of class as being particularly stressful [43].

Stressful events that change one's life for an extended period can lead to health related problems [43]. Nursing students commonly experience anxiety and stress during their initial clinical training and practice. Stress during this period can result in several negative outcomes, such as poor academic performance, elevated burnout levels, and diminished personal well-being. All these are detrimental to the achievement of the goal of training, which is to prepare competent nurses. Therefore, it is vital for clinical teachers to be aware of the factors that may prompt increases in the level of stress among nursing students and the adaptation techniques they utilize to overcome stressors. There is evidence to support the idea that helping students develop positive stress coping abilities is useful for their successful adaptation to several stressors throughout their learning. Furthermore, a recent integrative review highlighted the importance of recruiting representative samples to assess nursing and midwifery students' stress and coping strategies in various institutions at specific years during their studies including prior to their clinical practice [23].

The aim of this study was to assess the clinical setting related stressors perceived by nursing students in Najran University.

## **MATERIAL AND METHODS**

### **Study design:**

Descriptive research design study was used to assess the clinical setting related stressors perceived by nursing students at the University of Najran.

### **Study Setting:**

The study conducted among nursing students (female and male).

### **Study population:**

The study conducted among under- graduate students enrolled in various academic years (from level 5 up to level 8 and internship) nursing students (female and male) at Najran University, Kingdom of Saudi Arabia.

### **Study area:**

This study was conducted at Najran City University, south of Saudi Arabia, it is located on the eastern extension of Najran city. The Colleges of Applied Medical Sciences and the College of Nursing at Najran University obtained academic accreditation certificates for 4 health programs from the German Academic Accreditation Authority, July 21, 2015.

The university obtained full institutional academic accreditation from the National Center for Academic Accreditation and Assessment, in the eighth cycle of the first round of accreditation for the month of February 2019.

### **Sample technique:**

The convenience sample was selected from nursing students (female and male) in Najran University.

### **Sample size:**

The subject of this study comprised of 141 student from nursing College of Najran University. The sample size was estimated as convenience sample.

### **Tool for data collection:**

Electronic questionnaire was used for data collection, questionnaires will distribute to nursing students at the Najran University except the other collages section.

The questionnaire consisted of three parts:

**First part:** consisted of sociodemographic characteristics such as age, academic level, and marital status.

**Second part:** perception of nursing students about clinical practice.

**Third part:** Perceived Stress Scale (PSS) among nursing students.

### **Scoring system:**

Severe Stress if score >70%, moderate 50 to 70%, mild <50%.

### **Tools validity and reliability:**

The tools of data collection was developed by researcher then it was tested for content validity by a jury of 3 expertise in the field. Tools reliability was conducted using Cronbach alpha co-efficient test. The tool perception reliability was ( $r= 0.823$ ) and stress reliability was ( $r= 0.901$ ).

### **Data analysis:**

Quantitative survey data was revised, coded and entered using Personal Computer (PC). Computerized data entry and statistical analysis were fulfilled using the Statistical Package for Social Sciences (SPSS) version 22. Data were presented using descriptive statistics in the form of frequencies, percentages and Mean SD. The Chi Square statistic is commonly used for testing relationships between categorical variables. Correlation coefficients are used to measure how strong a relationship is between two variables.

**Significance of the results:**

Highly significant at p-value < 0.01.

Statistically significant was considered at p-value < 0.05

Non-significant at p-value ≥ 0.05

**Ethical approval:**

The research proposal was approved from the ethical committee at college of nursing Najran University; oral consent sent to female and male college groups and was taken from each student. Also, all students was ensured about confidentiality and anonymity of their data as it is used only for research purpose.

**RESULTS:**

**Table (1): Distribution of studied students according to their characteristics (n=141)**

Items	n	%
<b>Age:</b>		
20 - <22	82	58.2
23 - 25	59	41.8
<b>Mean SD</b>	22.25±2.17	
<b>Gender:</b>		
Male	28	19.9
Female	113	80.1
<b>Levels:</b>		
Level five	29	20.6
Level six	33	23.4
Level seven	35	24.8
Level eight	20	14.2
Internship	23	16.3
<b>Marital status:</b>		
Single	123	87.2
Married	18	12.8

Table (1) reveals that the study students consist of 141. More than half of them (58.2%) are between ages from 20 to less than 22 years old, with mean age x- SD. 22.25±2.17 years. Most of them (80.1%) are female. As regard academic level, almost one quarter of them (24.8%) are at level seven, while 14.2% of them at level eight. Regarding marital status, the majority of them (87.2%) are single.

**Table (2): Distribution of studied students according to their Perception of nursing students about clinical practice (n=141)**

Items	n	%
<b>Student opinion about clinical practice:</b>		
Satisfactory	44	31.2
Unsatisfactory	30	21.3
Neutral	67	47.5
<b>Enjoyable clinical experience:</b>		
Yes	40	28.4
No	28	19.8
Maybe	73	51.8
<b>Feel stressor and anxious during practical training if the medical team includes men/women:</b>		
Yes	52	36.9
No	39	27.6
Maybe	50	35.5
<b>Students' expectations about acquired clinical experience:</b>		
Excellent	65	46.1
Good	45	31.9
Bad	31	22

<b>The best thing to happen during clinical practice:</b>		
Cooperation	28	19.8
Successful achievement of students	15	10.6
Encourage of students	24	17
Self- learning	20	14.2
Applying all skills	19	13.5
Good orientation to different departments	17	12.1
Helping medical team	10	7.1
Enjoy working with patients	8	5.7
<b>Students' opinions to improve clinical practice and clinical:</b>		
Good understanding of teachers to students	22	15.6
Continuous supervision on students	20	14.2
Increase time for demonstrating skills	26	18.4
Cooperation between student and teacher	19	13.5
Make different places available for clinical training of students	18	12.8
Encourage students	23	16.3
Availability of facilities in the lab	13	9.2

Concerning Perception of nursing students about clinical practice, table (2) represents that almost half of them (47.5%) have neutral opinion about clinical practice. Also, more than half of them (51.8%) of them mention that they may be Enjoy clinical experience. In addition, more than one third of them (36.9%) report that Feel stressor and anxious during practical training if the medical team includes men/women. Regarding Students' expectations about acquired clinical experience, 46.1% of them are Excellent. As regard the best thing to happen during clinical practice, 19.8% of them mention Cooperation whilst 5.7% of them stat Enjoying working with patients. Moreover, Students' opinions to improve clinical practice and clinical 18.4% of them stat Increase time for demonstrating skills, but 9.2% of the mention Availability of facilities in the lab.

**Table (3): Distribution of studied students according to their Perception of nursing students about clinical practice (n=141)**

Items	n	%
<b>The worst thing to happen during clinical practice:</b>		
Bad treatment with students	20	14.2
Mal- practicing of students	19	13.5
Lack of ideal practical learning with students	15	10.6
Lack of time	22	15.6
Facing dying and death of patients	30	21.3
Problem confronts the students during practical time	25	17.7
Lack of facilities	10	7.1
<b>Emotional symptoms:</b>		
I tend to be worried and nervous	21	14.9
I tend to be nervous and anxious lately	15	10.6
I often feel depressed and miserable	9	6.4
I feel afraid without any reason	14	9.9
I feel I am going to have a nervous breakdown	19	13.5
I feel more anxious lately	42	29.8
I cannot calm down	21	14.9
<b>Social behavioral symptoms that students suffering during clinical practice:</b>		
I am not optimistic about my future	24	17
My life is not very colorful	19	13.5
I cannot work as usual	32	22.7
I have difficulty in making decisions	20	14.2
I do not feel needed or valued	16	11.3
I cannot think as clearly as before	30	21.3
<b>Physical symptoms that students suffering during clinical practice:</b>		
I often feel giddy	29	20.6
I experience nausea and vomiting	32	22.7
I often have vertigo and feel dizzy	19	13.5
I feel pressure in the chest	10	7.1
My fingers and toes feel numb or painful	9	6.4
I have stomach-ache and diarrhea	10	7.1
I have difficulties in breathing for no reason	12	8.5
I catch cold more often	20	14.2
<b>Adequately prepared for the clinical practice:</b>		

very high degree	37	26.2
fairly high degree	52	36.9
fairly small degree	34	24.1
not at all	18	12.8
<b>Provide a good environment to receive students:</b>		
very high degree	33	23.4
fairly high degree	59	41.8
fairly small degree	29	20.6
not at all	20	14.2

Regarding the worst thing to happen during clinical practice, table (3) illustrates that 21.3% of the studied students report Facing dying and death of patients. Concerning Emotional symptoms, more than one quarter of them (29.8%) mention, "I feel more anxious lately". As regard Social behavioral symptoms that students suffering during clinical practice, 22.7% of them stat "I cannot work as usual". Moreover Physical symptoms that students suffering during clinical practice, 22.7% of them inform "I experience nausea and vomiting". More than one third of them (36.9%) have fairly high degree of preparation for the clinical practice. Also, 41.8% of them have fairly high degree of a good environment.

**Table (4): Distribution of studied students according to their Perceived Stress Scale related clinical practice (n=141)**

Stress domains	n	%
<b>Stress from taking care of patients</b>		
Severe	42	29.8
Moderate	60	42.6
Low	39	27.6
<b>Stress from assignments and workload</b>		
Severe	38	26.9
Moderate	53	37.6
Low	50	35.5
<b>Stress from lack of professional knowledge and skills</b>		
Severe	23	16.3
Moderate	45	31.9
Low	73	51.8
<b>Stress from area of practice</b>		
Severe	40	28.4
Moderate	43	30.5
Low	58	41.1
<b>Stress from peers and daily life</b>		
Severe	37	26.2
Moderate	50	35.5
Low	54	38.3
<b>Stress from teachers and nursing staff</b>		
Severe	49	34.8
Moderate	73	51.8
Low	19	13.4
<b>Total:</b>		
Severe	39	27.7
Moderate	65	46.1
Low	37	26.2

Table (4) reveals Perceived Stress Scale related clinical practice of the studied students. It illustrates that, less than half of them (42.6%) have Moderate Stress from taking care of patients. Also, more than one third of them (37.6%) have Moderate Stress from assignments and workload. More than half of them (51.8%) have low Stress from lack of professional knowledge and skills. In addition, 41.1% of them have low Stress from area of practice. Moreover, 38.3% of them have low Stress from peers and daily life. And so, 51.8% of them have moderate Stress from teachers and nursing staff.

Figure (1) Distribution of studied students according to their total stress (n=141)

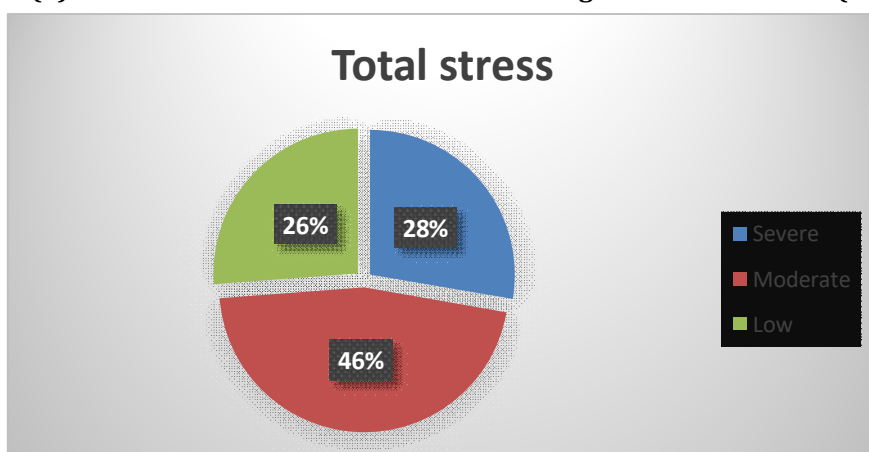


Figure (1) clarifies total stress of the studied students. Less than half of them (46.1%) have moderate stress, while 27.7% of them have severe stress and so 26.2% of them have low.

Table (5): Relation between demographic characteristics of the studied students and their total stress level (n=141).

Demographic characteristic	Total stress						X <sup>2</sup> test	p- value
	Mild n=37		Moderate n=65		Sever n=39			
	N	%	N	%	N	%		
<b>Age group: /year</b>								
20 - <22.	12	32.4	40	61.5	30	76.9	10.625	.001**
23 - 25.	25	67.6	25	38.5	9	23.1		
<b>Gender</b>							12.098	.000**
Male	20	54.1	6	9.2	2	5.1		
Female	17	45.9	59	90.8	37	94.9		
<b>Levels:</b>							6.087	0.009**
Level five	3	8.1	15	23.1	11	28.2		
Level six	5	13.5	18	27.7	10	25.6		
Level seven	7	18.9	19	29.2	9	23.1		
Level eight	8	21.6	6	9.2	6	15.4		
Internship	14	37.8	6	9.2	3	7.7		
<b>Marital status:</b>							14.157	.000**
Married.	0	0	3	4.6	15	38.5		
Single	37	100	62	95.4	24	61.5		

(\*) statistically significant at  $p \leq 0.05$  (\*\*) high statistically significant at  $p \leq 0.01$

Table (5) reveals a highly statistically significant relation between the studied students' total stress level and their Age, Gender, Levels and Marital status with ( $X^2=10.625$ ,  $p=0.001^{**}$ ), ( $X^2=12.098$ ,  $p=0.000^{**}$ ), ( $X^2=6.087$ ,  $p=0.009^{**}$ ), ( $X^2=14.157$ ,  $p=0.000^{**}$ ) respectively.

Table (6) Correlation between studied variables

	Stress scale	Student opinion about clinical practice	Enjoyable clinical experience	prepared for the clinical practice
Stress scale		r. -0.499 <0.01**	r. -0.502 <0.01**	r. -0.567 <0.01**
Student opinion about clinical practice			r. 0.399 <0.05*	r. 0.328 <0.05*
Enjoyable clinical experience				r. 0.602 <0.01**
prepared for the clinical practice				

(\*) statistically significant at  $p \leq 0.05$  (\*\*) high statistically significant at  $p \leq 0.01$

Table (6) shows highly statistically significant negative correlations between Stress scale and Student opinion about clinical practice, Enjoyable clinical experience and so prepared for the clinical practice with

( $r = -0.499, p = 0.01^{**}$ ), ( $r = -0.502, p = 0.01^{**}$ ) and ( $r = -0.567, p = 0.01^{**}$ ) respectively. A highly statistically significant positive correlation exists between Enjoyable clinical experience and prepared for the clinical practice ( $r = 0.602, p = 0.01^{**}$ ). Statistically significant positive correlations are found between Student opinion about clinical practice, Enjoyable clinical experience and prepared for the clinical practice ( $r = 0.399, p = 0.05^*$ ), ( $r = 0.328, p = 0.05^*$ ) respectively.

## DISCUSSION

During nursing students training, they are subjected to both academic and work-related stress. Organizational stresses and their interplay are a key topic of study in the growing body of research on workplace anxiety. These include time constraints, workload, decision-making and constant changes in the workplace [44]. The objective is to assess the clinical setting related stressors perceived by nursing students in Najran University. The present study showed that 31.2% of students were satisfied about clinical practice. Also, more than half of them 51.8% of them mention that they may be enjoy clinical experience, this result is accordance with studies done by [5], which showed the level of nursing students' satisfaction with their clinical practice of nursing; about 32.8% were satisfied. Another study done by [5,21,], reported that the majority 90% of students, think clinical practice as enjoyable.

The present study showed that concerning emotional symptoms, more than one quarter of them 29.8% mentioned "I feel more anxious lately". As regard social behavioral symptoms that students suffering during clinical practice, 22.7% of them stated "I cannot work as usual". Moreover physical symptoms that students suffering during clinical practice, 22.7% of them inform "I experience nausea and vomiting", these results agreed with a study done by [5, 3], which showed student anxiety was the most common emotional symptoms that suffered. On the other hand a study revealed by [3], regarding to the social behavioral symptoms that students suffering during clinical practice, the students stated they cannot think as clearly as before, and regarding to physical symptoms the students informed they catch cold more often.

The current study showed less than half of students 42.6% have moderate stress from taking care of patients. In addition, more than one third of them 37.6% have moderate stress from assignments and workload. More than half of them 51.8% have low stress from lack of professional knowledge and skills. In addition, 41.1% of them have low stress from area of practice. Moreover, 38.3% of them have low stress from peers and daily life. And so, 51.8% of them have moderate stress from teachers and nursing staff, these results agreed with a study done by [45], which revealed students had low stress from lack of professional knowledge and skills, and area of practice. Another study done by [1], showed students had low stress from lack of professional knowledge and skills. On the contrary a study done by [41], showed different results which was students had high stress from assignments and workload, and area of practice. In addition a study done by [45], reported students had high stress from assignments and workload, and teachers and nursing staff. Also moderate stress from peers and daily life.

The present study showed less than half of students 46.1% have moderate stress, while 27.7% of them have severe stress and so 26.2% of them have low, this result matched with a study done by [41], which showed most of nursing students 84.5% had moderate level of stress. Another study showed a similar result done by [45], revealed that students perceived moderate level of stress. Also a study done by [43], showed 54.5% moderate, and 36.7% high stress level. On the other hand a study revealed by [37], about 41.0% of the participants had a mild level of stress, 36.8% had no stress. The current study showed a highly statistically significant relation between the studied students' total stress level and their age, gender, levels and marital status, this result was agreed with a study done [43], which showed there was significant relation between the studied students' total stress level and their gender, and levels. Another study done by [3], revealed that there was significant relation between the studied students' total stress level and their levels, and marital status. Also [37] study reported there was significant relation between the studied students' total stress level and their age. By contrast a study done by [5], showed there was not significant relation between the studied students' total stress level and their gender, and marital status.

The present study revealed highly statistically significant negative correlations between stress scale and student opinion about clinical practice, enjoyable clinical experience and so prepared for the clinical practice, this result is accordance with studies done by [43], which found relation between stress scale and student interesting about nursing clinical setting. Another study done by [30], showed relation between stress scale and challenging study plan preparing for clinical practice. On the other hand a study done by [16], showed that there was relation between stress scale and lack of preparing for clinical practice.

## CONCLUSION

The study concluded that the worst thing happen during clinical practice was facing dying and death of patients, anxiety was the most common emotional symptoms, and work suffering was the most social behavioral symptoms. While experience nausea and vomiting was the most physical symptoms that students suffering during clinical practice. Also, the study showed that less than half of students have moderate total stress level and there were a highly statistically significant relation between the studied students' total stress level and their age, gender, levels and marital status. In addition, there were a highly statistically significant negative correlations between stress scale and student opinion about clinical practice, enjoyable clinical experience and prepared for the clinical practice.

**Conflict of Interest: Nil.**

## ACKNOWLEDGMENT

The authors would like to express their Gratitude's to the ministry of education and the deanship of scientific research – Najran University – Kingdom of Saudi Arabia for their financial and Technical support under code number (NU/NRP/MRC/12/41)

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