

Stressors among Nurse Interns' and Their Perception Regarding Coping Strategies

Marwa Abd El-Rahman , Harisa El -Sheimy,. Samah Mohamed

Department of Nursing Administration– Faculty of Nursing, Ain Shams University – Egypt

Abstract

Background: Stress is seen as a modern society's illness experienced by professionals from different sectors. It has effects on people's behaviors, communications and efficiency. Healthcare systems usually provide many stimulus that produce stress especially at the beginning of the nursing career due to the differences between the real world and the ideal world of nursing "reality shock" (*Redhwan, et al 2009*). **Aim** of this study was to assess the stress levels among nurse interns, determining stressors facing nurse interns from their points of view and investigate nurse interns' perception regarding stress coping strategies. **Design:** A descriptive design was used in this study. **Setting:** The study was conducted at Ain- Ain-Shams University, El-Demerdash, Pediatrics, and cardiovascular hospitals. **Sample:** included all the available nurse interns having their training in the aforementioned settings they were 110 nurse interns. **Tools:** Three tools were used for data collection in this study namely, perceived Stress Scale (PSS-14) to assess the stress levels, stressors scale to determine stressors among nurse interns, and Coping Behavior Inventory (CBI) to investigate nurse interns' perception regarding stress coping strategies. **Result:** the results of this study revealed that the nurse interns had moderate level of stress, and the most stressor experienced by them was stressor from hospital staff and the least one was stressors from taking care of patient, regarding the coping strategies preferred by them avoidance was the most preferred and transference was the least preferred. **Conclusion:** The results provided valuable information for clinical educators and clinical staff in identifying students' needs, facilitating their learning in the clinical setting and developing effective interventions to reduce the stress they encounter. **Recommendations:** it's recommended to provide nurse interns with adequate orientation program in the beginning of their training period to provide guidance and help, supporting them with periodical workshops to improve their skills, and assisting them to overcome any stressors facing them during the internship year.

Key words: Nurse interns, stress, stressors, coping strategies.

Introduction

Stress is seen as a modern society's illness experienced by professionals from different sectors. It has effects on people's behaviors, communications and efficiency (*Redhwan, et al 2009*). Healthcare systems usually provide many stimulus that produce stress especially at the beginning of the nursing career due to the differences between the real world and the ideal world of nursing "reality shock". Nursing is recognized as a

stressful occupation. There appears to be general agreement that working in the nursing profession is demanding and often stressful when compared to other professions, because nurses are more to be exposed to factors known to cause stress as role conflict, role ambiguity and significant work demand (*Lofmark et al.,2006.*)

Stress is a perceived concept, meaning that it can be caused by anything that one feels which unbalances the harmony in his or her life (*Mohamed and*

Ahmed,2012) [4]. Stress results from a mismatch between the demands and pressures on the person, on one hand, and their knowledge and abilities, on the other hand. It challenges the ability to cope with work. This includes not only situations where the pressures of work exceed the one's ability to cope but also where the one's knowledge and abilities are not sufficiently utilized and this is considered as a problem (*World Health Organization,2010*)

Stress is an internal state which can be caused by physical demand on the body or by environmental and social situation which is evaluated as potentially harmful, uncontrollable or exceeding our resource for coping (*Mangal and Mangal ,2015*). Stress occurs when pressure exceeds beyond its perceived ability to cope ,it is the body's reaction to a change that requires a physical, mental or emotional adjustment or response (*Kumar and Bhukar,2013*). Stress is proved to decrease physical and psychological health, job satisfaction, and constancy and increase interpersonal relationship barriers which intend nurses to quit job, and lead to nursing shortage (*Yeh and Huang ,2007*).

The transition from being a student to a nurse intern practicing in a hospital organization is a turning point for the nurse intern. The first months has the potential to be the most challenging and stressful period of adjustment for the role of being a nurse. The psychological stress experienced includes anxiety as a result of attempting to cope with the challenges of the new role. High levels of stress seem to afflict nurse interns and this is associated with entering the clinical setting for the first time whereby they seem to experience lack of confidence through exposure to unfamiliar circumstances (*Jamshidi et al., 2016*).

The clinical training is regarded as a key component of nursing education designed for the nurse interns to acquire the necessary professional skills and develop the attitudes that will positively impact the quality of care delivered to patients. Factors influencing clinical preparation include the clinical learning environment, clinical educator competence and technical skills of nursing staff. Clinical education and the clinical area can be stressful for the nurse interns (*Bam et al., 2014*).

Researchers have also reported discrepancies between the skills and theory nurses learn during their undergraduate education and their actual practices in their first months in health care settings. This theory-practice gap has been shown to affect the nurse interns work readiness in their first months and tends to lead to high attrition rates through job dissatisfaction. The theory-practice gap is also a common problem that surfaces the nurse interns, where there is a mismatch between that learned in the classroom and what actually occurs in the clinical arena. The nurses may become desensitized to the needs of patients and poor nursing practice habits because they become resigned to the situation rather than question the conflicts between what they have learned and what is being practiced in reality(*Missen et al., 2014*).

Stressors in clinical training reported most frequently by *Oermann and Garvin's (2002)* were not feeling confident and competent, making mistakes because of increased workload and responsibilities, encountering new situations, surroundings, and procedures, inconsistent preceptors in turn. Workload and overtime, inexperienced in skills, and poor interaction with others are major stressors in newly-graduated nurses (*Huang, 2004*).

Also ,stressors among nurse interns also include difficulty in developing relationships with professionals, lack of familiarity with operating procedures and with the hospital environment, lack of professional proficiency, committing errors, uncertainty of patients' expectations, use of improper clinical teaching methods, complexity of the working environment, lack of familiarity with the regulations of the hospital and learning incompetence, communicate ineffectively with patients and their families, lack of knowledge and confidence to give patients safe and independent care, fear of setting medical apparatus, inability to carry out the procedure of machines or tests, dealing with ambiguous orders, unfamiliar diagnosis or order which not experiencing before (*Jamshidi et al., 2016*).

Generally, nursing interns cannot stay away from the clinical stressors; nevertheless, their coping has been acknowledged as a balancing factor that may help them in keeping psychosocial adaptation throughout stressful conditions (*Alzayyat et al.,2015*). So, Effective coping strategies for managing stress are crucial and can turn a highly stressful situation into a manageable one , facilitate the return to a balanced state, and reduce the negative effects of stress. Coping is the process of managing demands that are appraised as taxing or exceeding the resources of the person (*Shelley, 2003*).

Moreover, coping is not a one-time action that someone takes rather it is a set of responses occurring overtime by which the environment and the person influence each other (*Singh et al., 2011*). *Bam et al., 2014* appointed that coping strategies include problem solving, social support, spiritual strategy, self-reliance, transference, and avoidance .Failure to identify and use good coping strategies

can result in serious personal and professional negative consequences.

Significance of the study

During the clinical round, the researcher noticed that the majority of nurses' interns are always complaining of being stressed, experience feelings of anxiety and aggressiveness. The researcher assumed that most of the interns' feelings are due to the transitional nature of the faculty life to the real life situation (internship year) as the nurse interns are facing many challenges and stressors, they perform procedures that can cause serious harm to their patients, thus enhancing their fear of making mistakes and experiencing stress. Accordingly the researcher is eager to investigate the level of stress among the nurse interns, the types of stressors that enhance their feelings and perception of nurse interns regarding coping strategies. It is hoped that the results of the study will help as a stone in reforming the internship program..

Aim of the study:

The aim of the study is to assess level of stress and stressors among nurse interns and their perception regarding coping strategies

Research Questions

1. What are levels of stress among nurse interns?
2. What are stressors facing nurse interns?
3. What is the nurse interns' perception regarding coping strategies?

Subjects and Methods

1. Research design

A descriptive design will be used in this study.

2. The study setting:

The study was carried out at Ain-Shams University Hospitals where nurse interns are having their training. These include the following hospitals: Ain-Shams University Hospital, El-Demerdash Hospital, Pediatrics Hospital, and Cardiovascular Hospital.

3. Subjects of the study:

The subjects of this study consisted of the nurse interns' having their training in the aforementioned settings. Their total number was 110 nurse interns'. The sample was 99 nurse interns' after exclusion of the 11 who participated in the pilot study from the total. 36 males and 74 females. The study subjects were distributed in the aforementioned settings as follows:

- **Ain-Shams University Hospital:** where 37 nurse interns have their training in six settings: Endemic intensive care unit, Neurological intensive care unit, Stroke Intensive Care Unit, First Haemodialysis unit and Second Haemodialysis unit, and cardiac care unit.

- **El-Demerdash Hospital:** where 30 nurse interns have their training in two settings: Combined Intensive Care Unit and Operation rooms.

- **Pediatrics Hospital:** where 15 nurse interns have their training in three settings: Neonatal Intensive Care Unit, Emergency Intensive Care Unit, medicine Intensive Care Unit, and surgery Intensive Care Unit.

- **Cardiovascular hospital:** where 17 nurse interns have their training in three settings cardiac care unit, Intensive Care Unit adult, and pediatric Intensive Care Unit.

4. Tools of data collection

The data for this study was collected through three tools namely, perceived Stress Scale (PSS-14), Stressors scale, and Coping Behavior Inventory (CBI).

Tool 1: perceived stress scale (PSS-14):

Perceived stress scale (PSS-14) was originally developed by (*Cohen et al., 1983*) to assess the stress levels among nurse interns.

This tool consists of two parts:

- **Part I:** This was aimed at collection of data related to nurse interns' demographic characteristics such as age, gender, pre- university education, the previous work, the site and duration of this work. It also involved some questions concerned with the internship training such as: The current hospital where the nurse intern work area exists, the duration of the training in the current hospital work area and the number of hours of training per week in the hospital.

- **Part II:** Perceived stress scale (PSS-14) was originally developed by (*Cohen et al., 1983*) to assess the stress levels among nurse interns. The Cronbach's alpha is 0.78 and the Cronbach's alpha in this study is 0.840. The Perceived stress scale (PSS-14) consists of 14 questions asking about their feelings and thoughts during the last month.

❖ Scoring system

The items were judged according to 5-point likert scale. (0=never;1= almost never; 2=sometimes; 3=fairly often; 4=very often) and are scored from 0-4. The total score is 56 low 0-19, moderate 20-38 and high 39-56. PSS-14 scores are obtained by reversing the scores on the seven positive items, e.g., 0=4, 1=3, 2=2, etc., and then summing across all 14 items. Items 4, 5, 6, 7, 9, 10, and 13 are the positively stated items (*Cohen et al., 1983*).

Tool 2: The Stressors Scale.

This scale used to determine the stressors among nurse interns; it is developed by the researcher based on the original tool developed by (*sheu et al., 1997*) (6 major domains) including 29 items, more recently it was modified and increased by (*Mohamed et al., 2012*) to become (7 major domains) including 42 items and then modified by the researcher to be consistent with the sample of this study. The researcher modified and added some items according to the jury opinionnaire and the final tool for data collection becomes (9 major domains) including 51 items as follows stress from taking care of patients (8 items), stress from assignments and workload(6 items), stress from lack of professional(5 items), knowledge and skills(5 items), stress from clinical environment(4 items), stress from peers and daily life(4 items), stress from hospital staff, stress from educators(8 items), stress from rules and regulations(6 items) and stress from changing role(5 items).

Content Validity

The content validity for this tool was ascertained before using it by a panel or (Jury) of five experts from nursing administration department at faculty of nursing Ain shams university (one

professor and one assistant professor) , psychiatric mental health nursing department faculty of nursing Ain shams university(one professor and one assistant professor) and one professor from nursing administration department faculty of nursing Helwan University, who reviewed the tool for clarity, relevance , comprehensiveness, simplicity, understanding and applicability. The items on which more than 95% of the experts have agreed were included in the proposed tool. The required corrections and modifications were done. Validity for this tool is measured and it is (97%).

The reliability of the jury opinionnaire is assessed through measuring the internal consistency by chronbach alpha coefficient, it was proved to be high and it is 0.84.The reliability for this study is 0.943.

❖ Scoring system

The items were judged according to 5-point likert scale. (0=never; 1=almost never; 2=sometimes; 3=fairly often; 4=very often) and are scored from 0-4. The total score is 204 (*sheu et al., 1997*).

Tool 3: Coping behavior Inventory (CBI):

Coping behavior Inventory (CBI) was developed by (*Sheu et al., 2002*). It is adopted to be used to identify the nurse interns' perception regarding their preference of coping strategies used. It consists of four domains include 19 items as follows: the first domain is transference behaviors (3 items), the second is optimistic coping behaviors (4 items), the third is problem-solving behaviors (6 items), and the fourth is avoidance behaviors (6 items). Cronbach's alpha is 0.76. Construct validity was confirmed using factor analysis (*Sheu et al. 2002*). The reliability in this study is 0.866.

❖ Scoring system:

The items were judged according to 5-point likert scale. (0=never; 1=almost never; 2=sometimes; 3=fairly often; 4=very often) and are scored from 0-4. Total score is 76(*Sheu et al., 2002*). Preferred (60%+) and not preferred (<60%).

Administrative design:

An official letter was issued from the Faculty of Nursing, Ain-Shams University, to obtain the permission from each hospital director of the four hospitals of Ain- Shams University to collect the data for the study. Then, the researcher met with each of these directors to explain to them the purpose of the study and to obtain their help and cooperation.

Field work:

The actual field work started at the beginning of June 2016 after securing all the official permissions. It was completed by the end of September 2016. The researcher collected data by herself through meeting each nurse intern individually in the training site , explaining the aim of the study and the method of filling out the three tools , and obtaining a verbal consent to participate . The researcher met with the nurse interns consecutively in the four hospitals according to their time schedule and rotation .Each nurse intern took from 20 to 30 minutes to fill in this form. The data were collected 2 days per week in the morning shifts from 9: am to 2: pm.

Results:

Table (1): Relation between the nurse interns' stress levels and their demographic characteristics.

	Stress level									
	Low		Moderate		High		Total		Chi-square	
	N	%	N	%	N	%	N	%	X ²	P-value
Age										
<24	23	69.7	38	97.4	12	44.4	73	73.7	23.552	<0.001*
24 or more	10	30.3	1	2.6	15	55.6	26	26.3		
Gender										
Male	15	45.5	13	33.3	4	14.8	32	32.3	6.403	0.041*
Female	18	54.5	26	66.7	23	85.2	67	67.7		
pre-university education										
Secondary school	27	81.8	34	87.2	13	48.1	74	74.7	14.188	<0.001*
Technical institute	6	18.2	5	12.8	14	51.9	25	25.3		
Marital status										
Married	3	9.1	4	10.3	12	44.4	19	19.2	15.281	<0.001*
unmarried	30	90.9	35	89.7	15	55.6	80	80.8		
Previous training										
No	7	21.2	18	46.2	8	29.6	33	33.3	5.233	0.054
Yes	26	78.8	21	53.8	19	70.4	66	66.7		
Duration of previous work										
<1	25	75.8	26	66.7	18	66.7	69	69.7	0.861	0.650
1 or more	8	24.2	13	33.3	9	33.3	30	30.3		
Current hospital for training										
Ain-Shams University Hospital	15	45.5	12	30.8	10	37.0	37	37.4	6.784	0.341
El-Demerdash Hospital	11	33.3	13	33.3	6	22.2	30	30.3		
Pediatrics Hospital	1	3.0	8	20.5	6	22.2	15	15.2		
Cardiovascular Hospital	6	18.2	6	15.4	5	18.5	17	17.2		
Duration of training in current hospital										
1 mon.	12	36.4	13	33.3	6	22.2	31	31.3	1.503	0.472
2 mon.	21	63.6	26	66.7	21	77.8	68	68.7		
Training hours\ week										
<36	1	3.0	2	5.1	1	3.7	4	4.0	0.214	0.899
36 or more	32	97.0	37	94.9	26	96.3	95	96.0		

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Table (2): Stress levels among nurse interns in the study sample (N=99)

Stress level	N	%
Low (0-19)	33	33.3
Moderate (20-38)	39	39.4
High (39-56)	27	27.3
Total	99	100.0

Table (3): Stressors ranking among nurse interns in the study sample (N=99)

Items	Ranking	Mean	SD
Stress from hospital staff	1	2.65	0.77
stress from changing role	2	2.64	0.72
Stress from clinical environment	3	2.63	0.75
stress from rules and regulations	4	2.58	0.76
Stress from educators	5	2.56	0.75
Stress from assignments and workload	6	2.41	0.69
Stress from lack of professional knowledge and skills	7	2.32	0.80
Stress from peers and daily life	8	2.23	0.68
Stress from taking care of patient	9	2.17	0.72

Table (4): Preference of coping strategies as perceived by nurse interns in the study sample (N=99)

Items	Number	Percent
Transference:		
Preferred	44	44.4
Not preferred	55	55.6
Staying optimistic:		
Preferred	56	56.6
Not preferred	43	43.4
Problem solving:		
Preferred	54	54.5
Not preferred	45	45.5
Avoiding:		
Preferred	65	65.7
Not preferred	34	34.3
Most preferred coping behavior:		
1. Avoiding		
2. Staying optimistic		
3. Problem solving		
4. Transference		

Table (5): Relation between nurse interns stress levels and their perception of preferring coping strategies.

Items	Stress level									
	Low		Moderate		High		Total		Chi-square	
	N	%	N	%	N	%	N	%	X ²	P-value
Transference										
Preferred	2	6.1	22	56.4	20	74.1	44	44.4	31.552	<0.001*
Not preferred	31	93.9	17	43.6	7	25.9	55	55.6		
Staying optimistic										
Preferred	3	9.1	28	71.8	25	92.6	56	56.6	48.218	<0.001*
Not preferred	30	90.9	11	28.2	2	7.4	43	43.4		
Problem solving										
Preferred	3	9.1	25	64.1	26	96.3	54	54.5	47.919	<0.001*
Not preferred	30	90.9	14	35.9	1	3.7	45	45.5		
Avoidance										
Preferred	7	21.2	34	87.2	24	88.9	65	65.7	43.384	<0.001*
Not preferred	26	78.8	5	12.8	3	11.1	34	34.3		

Table (6): Relation between stressors among nurse interns and their stress level

Items	Stress level							
	Low		Moderate		High		ANOVA	
	Mean	SD	Mean	SD	Mean	SD	f	P-value
Stress from taking care of patient	2.10	0.66	2.04	0.75	2.11	0.76	0.082	0.922
Stress from assignments and workload	2.57	0.71	2.25	0.68	2.40	0.65	1.880	0.158
Stress from lack of professional knowledge and skills	2.31	0.77	2.14	0.89	2.30	0.74	0.432	0.651
Stress from clinical environment	2.56	0.83	2.61	0.74	2.58	0.67	0.031	0.969
Stress from peers and daily life	1.92	0.79	2.27	0.54	2.37	0.59	4.313	0.016*
Stress from hospital staff	2.17	0.61	2.28	0.66	2.67	0.73	4.566	0.013*
Stress from educators	2.39	0.80	2.51	0.71	2.57	0.78	0.516	0.599
stress from rules and regulations	2.52	0.75	2.45	0.64	2.39	0.85	0.284	0.753
stress from changing role	2.10	0.53	2.54	0.68	2.81	0.66	9.919	<0.001*

Discussion

Stress in nursing students is an area of growing concern and it may result in psychological distress, physical complaints, behavior problems and poor clinical performance. Also, the transition from being a student to a nurse intern practicing in a hospital organization is a turning point for the nurse interns as the first months has the potential to be the most challenging and stressful period of adjustment for the role of being a nurse. The psychological stress experienced includes anxiety as a result of attempting to cope with the challenges of the new role. High levels of stress seem to afflict nurse interns and this is associated with entering the clinical setting for the first time whereby they seem to experience lack of confidence through exposure to unfamiliar circumstances (*Jamshidi et al., 2016*).

The aim of this study was to assess the stress levels among nurse interns, determining stressors facing nurse interns from their points of view and investigate nurse interns' perception regarding stress coping strategies. This study was carried out at Ain-Shams University Hospitals where nurse interns are having their training. These include the following hospitals namely: Ain-Shams University Hospital, El-Demerdash Hospital, Pediatrics Hospital, and Cardiovascular hospital.

Regarding the demographic characteristics of the nurse interns in this study their age ranges between 21 and 25 years, slightly more than two thirds were females and three quarters are secondary school graduates. The majorities of nurse interns were unmarried and had a previous work with duration less than one year. The duration of training in the hospital was mostly 2 months and the training hours were more than 36 hours per week and ranged between 12 and 72 hours.

According to the present study findings, the dimension of organizational learning and continuous improvement had the highest score of agreement among the nurse interns. This dimension involved actively doing things to improve patient safety, learning from mistakes, and evaluating effectiveness of improvement interventions.

The study findings related to the demographic characteristics are consistent with other studies conducted by (*Walton, 2002; Lin, 2006; Labrague, 2013; Alzayaat and Al Gamal, 2014; Akhu-Zaheya, Shaban and Khater, 2015*) who argued that the majority of their nursing students' gender were predominantly females, but in contrast a study conducted by (*Anand et al., 2015*) revealed that the majority of the nursing students' were males.

According to the marital status there is agreement between our findings and other study findings which assured that most of the nursing students were unmarried (*AL-Barrak, EL-Nady and Fayad, 2011; Walton, 2002*). Regarding the age and training hours per week (*Walton, 2002*) [139] findings' are consistent with this study in which the age is ranged between 21 and 25 and the training hours were more than 10 hours per week.

As regards the stress level among nurse interns, the present study results demonstrated that out of 99 nurse interns had moderate level of stress 27.7 ± 14.3 (39.4%). The finding is in agreement with (*Tully 2004; Burnard et al., 2008; Chan et al., 2009; Jimenez et al., 2010; Sharma et al., 2011; Shaban et al., 2012; Blomberg et al., 2014; Zhao et al., 2014; AL-Zayat et al., 2014; Labrague 2014; and Bam et al., 2015*) who argued that the stress level was moderate in their studies. Also, (*Moshin et al., 2010*) in their study of perceived stress, sources and severity of stress

among medical undergraduates in Pakistani medical school, which carried out on 161 medical students , the overall mean of perceived stress as measured by PSS was moderate 30.84 ± 7.01 . It was significantly higher than the current research studied group.

The present study indicates that the age was found to be a significant contributing factor toward the stress level whereby those who were above 24 years of age had lower level of stress than who were below 24 years. This finding supported the findings of other authors where there is an inverse relationship between stress level and the age that describes either selective withdrawal from high stress or that senior member of organizations are more adopted and therefore experience less stress (*Duujian T 2012; Koch, Tung, Gmelch, and Swent, 1982; Sheridan and Vredenburg, 1978*).

Moreover, the gender was found to be a significant causal factor related to the stress level in this study where the females experienced more stress than the male nurse interns. This result is in agreement with the findings of another studies which reveals that the females reported a higher level of stress than their male counterparts (*Duujian T 2012; Brougham, Zail, Mendoza and Miller, 2009; Kaur and Das, 2009*) this may be due to the fact that females expected to observe social customs and restrictions in the Egyptian society comparatively more than the males. One of the other reasons could be that the females had less freedom and choice in comparison to the males. Also, females usually are busy throughout the day due to hectic life style and this in agreement with (*Kumar and Bhukar, 2013*). Despite all that aforementioned reasons, the findings are inconsistent with other studies which found that stress level does not differ on the basis of gender (*Supe,*

1998; Kumur, 2011; and Akhu-Zaheya, Shaban and Khater, 2015).

In the light of this study findings, there is significant relation related to the pre-university education were the majority of the nurse interns who experienced high level of stress were secondary school graduates and this may be due to their inexperience in dealing with the patients, nurses, and faculty staff prior to joining the faculty of nursing, whereas those who were graduated from technical institute had previous and more experience in dealing with hospital staff and faculty members and thus experienced less stress. In addition, the unmarried nurse interns experience lower stress level than the married nurse interns this may be related to their less responsibility, having more spare times and less pressure in comparison to the multi-responsibilities the married ones had such as meeting the financial responsibilities.

In the present study, stress from hospital staff, stress from changing role, and stress from clinical environment were the highest- three ranked stressors among nurse interns followed by stress from rules and regulations, stress from educators, stress from assignments and workload, stress from lack of professional knowledge and skills, stress from peers and daily life, and the lowest-ranked stressor was stress from taking care of patient.

Regarding stress from hospital staff ,this result is in accordance with (*Nolan et al. 2008; Mohamed and Ahmed, 2012; Timmins and kaliszer, 2002*) who reported that the common stressor perceived by nursing students was relationships with tutors, relationships with clinical placement coordinators followed by relationships with staff on wards. Moreover, (*Kim, 2003*) reported that interpersonal relationships with

health care providers is one of the most common and significant stressors to nursing students.

A possible explanation for why stress from hospital staff was the highest-ranked stressors among nurse interns is that the nurse interns may be deprived from the feeling of belonging thus they will be more likely to experience a low self esteem, increase stress, anxiety, depression, and a decrease in general well-being. Also, nurse interns may have a potential feeling of discomfort when they feel that they are not treated respectively and friendly by the hospital staff or not welcomed by them. Other reason might be due to their feeling of taking an extra burden or workload more than they could tolerate or not reaching the expectations of others.

The latest and the least stressor is stress from taking care of patients. While this stressor in other studies is regarded as a major and common type of stressors, but in our study it is the lowest stressor experienced by the nurse interns. This come in disagreement with (*Anand et al., 2012*) who stated that taking care of patient was one of the significant stressful aspects in clinical practice perceived by students. Also, it is not consistent with (*Chanq, 2007*) who stated that among different stressors, students rate stress from taking care of patients as one of the top three stressors. Moreover, (*Sheu et al., 2002*) reported in his cross sectional study about stressors among nursing students that taking care of patients represents the most stressful to student.

Regarding this dimension, duration of training in current hospital was found the only significant contributing factor related to the dimension of stressors from taking care of patients, through which the nurse interns who have training for 2 months has extra burden, load and stress comparing to the nurse interns who worked for one month.

Clinical area can be stressful for students (*Cilingir et al., 2011; Chan et al., 2009; Timmins and Kaliszer, 2002; Mahat, 2002*). Identified stressors in the clinical setting for students include fear of making mistakes, attitude of clinical team, unfriendly atmosphere, interpersonal relationships, theory practice gap, lack of teaching and interest in learners, reprimands in front of staff and patients, and fear of unknown situations (*Cilingir et al. 2011; Pulido-Martos et al., 2012; Chan et al., 2009; Moscaritolo, 2009; Gibbons et al., 2008; Seyedfatemi et al., 2007; Timmins and Kaliszer, 2002; Mahat, 2002*). Continuous stress affects both physical and psychological health resulting in negative outcomes (*Button, 2008*). Effective coping strategies for stress are very important and can turn a highly stressful situation into a manageable one (*Chan et al., 2009; Rowe, 2006*).

As regards to the nurses interns' perception of preferring coping strategies, the finding of this study illustrated that the nurses interns are equipped with coping strategies to deal with clinical stress that inherent in their internship experience. The present study result shows that the nurse interns prefer using different coping strategies, the most preferred coping strategy used is avoidance followed by staying optimistic and problem solving. The transference strategy was the least preferred coping strategy

The findings of the present study indicated that the most preferred coping strategy was avoidance. This finding lends support to those conducted by (*Shaban et al., 2012; Tully, 2004; and Sheu et al., 2002*), who found that the avoidance coping strategy was the most preferred. In contrary to the present study findings a study conducted by (*singh et al., 2011; Akhu-Zaheya, Shaban and Khater, 2015*) revealed that avoidance

was the least preferred coping strategy. The avoidance strategy is considered not very effective and could be maladaptive in a study conducted by (*Emilia & Hassim 2007*).

The last and the least preferred coping strategy is transference. On the same line, (*Alzayaat and Al Gamal, 2014*) found that the transference strategy was the least utilized/preferred coping strategy and added that, the frequent use of emotion based coping strategy (transference) to deal with stressors will lead to negative results such as the students' perceive higher levels of stress . On the contrary , (*Patra Phuekphan ,2009 ;Singh et al., 2011*) stated that their sample firstly preferred using transference coping strategy as the main and the most utilized one.

Moreover, in the present study transference coping strategy is not preferred as much as the other strategies used in this study. This could be because the transference coping strategy (i.e. watching TV or having a shower) provides quick relief of the transitory stress symptoms specifically at the initial period of training, when the clinical training progressed, the nurse interns might realized that the transference coping strategy was ineffective for handling long-term clinical stress during the internship training.

Moreover, in the present study the non-preference of the transference coping strategy is found to be significantly associated with low level of stress because the transference coping strategy (i.e. watching TV or having a shower) provides quick relief of the transitory stress symptoms in the initial period of practice. When the clinical training progressed, the nurse interns realized that the transference coping strategy was ineffective for handling long-term clinical

stress. Consequently, the utilization of the transference coping strategy is decreased.

On the other hand, the researcher study findings are in contrary to the study findings of (*Mahat,1998 ;Shue et al.,2002 ;AL-Zayyat and AlGamal ,2014*) where the students who experience higher levels of stress with poor interpersonal relationships utilized avoidance or transference strategies more than those who utilized problem solving and staying optimistic coping strategies. Additional research is needed to understand better why and how students use a combined coping strategy for the relief of stress.

The present study has also revealed that there were significant relationship between the stress levels and certain types of stressors among nurse interns. It's found that there are three types of stressors which are commonly noted with high levels of stress. Firstly, the more significant is related to the stress from changing role followed by stress from hospital staff and stress from peers and daily life.

According to the present study findings, generally there is significant relation between types of coping strategies and certain types of stressors among nurse interns; it's indicated that all types of coping strategies in this study are in relation with stress from hospital staff, stress from changing role and stress from peers and daily life. Specifically , transference coping strategy is in relation to stress from assignment and workload, problem solving strategy is in relation with stress from rules and regulations, and avoidance is in relation with stress from clinical environment.

Conclusion

The results provided valuable information for clinical educators and clinical staff in identifying students' needs, facilitating their learning in the clinical setting and developing effective interventions to reduce the stress they encounter.

Recommendation:

Based on the study findings, the following recommendations are proposed:

- It's recommended to provide nurse interns with adequate orientation program in the beginning of their training period to provide guidance and help
- It's recommended to support them with periodical workshops to improve their skills, and assisting them to overcome any stressors facing them during the internship year.

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