

Learning Environment Stressors and Coping Styles among Nursing Students

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Abstract

Stress is non-ended problem associated with learning. Coping styles are the only approaches that help students to overcome the stress and enhance the educational success. The study aimed to identify stressors and coping styles of nursing students. A descriptive research design was used. 118 nursing students were asked to fill out the questionnaire. The highly learning environment stressors were coming from assignments and workload (12.14+4.19) and taking care of patients (10.14+4.19). The highly used coping styles were religion (3.28 + 1.0), Acceptance (3.06 + 0.89) and active coping (2.92 + 0.68).. It can be concluded that the clinical workload found in the courses is the common stressor for last year students.

Keywords: Nursing students, stress, coping styles, learning environment.

Introduction

Nursing program is an integral part of health professionals and nursing students are obliged to pass through the planned courses to graduate. During academic life, students suffer numerous stressors due to the requirements needed from the teachers either on the theoretical or clinical events. Indeed, the clinical components of the nursing courses are more stressful in comparison of the theoretical component¹. The prevalence rates of stress among nursing students are likely to be about 14.3 % - 56% globally². Minimal stress enhances students' performance and it could be a motive for further achievements but stress which exceeds the limit may have detrimental effects on students' performance and overall well-being³. In the academic

areas, stress is becoming a notable concern mostly due to its undesirable effect on students' Psychology as well as physical well-being⁴.

As nursing students are recurrently exposed to numerous stressful situations which is unavoidable, it is essential for them to improve potentiality to adjust with stress which helps to improve their learning outcome and developing respectable patient care practice^{1,5}.

Three main sources of stress are identified in recent studies which are categorized into academic, clinical, and personal/social stress. Factors of academic stress could be the preparation for theoretical exams, assignments from the teachers, lack of integration between theory and practical areas, continuous negative criticism from the instructors, anxiety from passing exams or periodic assignments, disappointment regarding teaching systems, lack of proper direction from instructors and heavy course materials⁵. The second type of stress is clinical stress. The frequently reported clinical stressors are involvement in many clinical events, fear of the unknown⁶, taking care of patients^{6,7}, fear of disappointment, unskilfulness in clinical area, anxiety of making errors⁸, experience of death and dying in the clinical setting⁹, unfamiliarity with patients' medical history, lack of knowledge about patients' diagnoses,

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and treatments¹⁰. The last type of stress is considered personal/social stress. This type of stress could be caused by time management in every daily life, interactions with friends, colleagues and instructors¹¹, being placed in unusual circumstances, working with unknown people, being noticed by trainers. So, retaining psychosocial adjustment during stressful academic life, students need help from society, family, friends and even from the teachers. Many studies have revealed that stress can be useful for nursing students as it performs as an influential promoter for understanding the situation but long time of exposure to stress can let the students being unable to implement positive coping efficiently¹².

The capability to stress assessment and to handle it, depends mostly on the coping styles offered by the students. Coping was defined early by Lazarus and Folkman (1984) as “constantly changing cognitive and behavioural efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the resources of the person”¹³. Nursing students practice various types of strategies to adjust themselves in different stressors that are necessary for their physical and mental fitness.

Very limited studies were done in Kingdom of Saudi Arabia to assess stress and coping style among nursing students during their BSN program. As the nursing students are forthcoming care givers of the patients, the present study was undertaken to identify learning environment stressors (LES) and the used coping styles to overcome stress.

Materials and Method

Design: A cross sectional descriptive research design.

Setting: College of Applied Medical Science, Nursing Department in King Faisal University, Saudi Arabia.

Study participants: A convenience sample consists of 118 female nursing students who enrolled in coordinator of care course under fourth-year BSN program in the academic year 2019- 2020.

Tools for data collection: Learning environment stressors and coping styles questionnaire was used to investigate the learning environment stressors as perceived by nursing students. It consists of three parts. The first part includes the students’ demographic data

as age, status, GPA, The second part is Perceived Stress Scale (PSS) which is adopted from Sheu et al, 1997¹⁴. This part consists of six- main stress domains and 29 sub-items totally to explore the areas of stressors. The six domains are taking care of patients, assignment and workload, lack of professional knowledge and skills, area of clinical practice. All items were rated on 5-point-likert scale. A score of “0” denotes never, “1” for almost never, “2” for sometimes, “3” for fairly often, and 4 for very often. The overall score was ranged from 0-29. Finally, the third part is the brief Cope inventory. It was developed by Sheu¹³, it is a four-point Likert scale used to identify nursing students’ coping styles. The scale consists 28 items which measured 14 different coping styles. Responses to each item ranged from ‘I usually don’t do this at all’ to ‘I usually do this a lot’ (“1” I usually don’t do this at all, “2” I usually do this a little bit, “3” I usually do this a medium amount, “4” I usually do this a lot).

Study procedures: Pilot study was carried out on 10 % of nursing students to test clarity and applicability of the study tools, and then necessary modifications were done. Reliability was also tested by Cronbach’s Alpha coefficient statistical test. It was 0.88.

The researcher distributed the questionnaire in 15th week after finishing their clinical exposure. It took from 20 to 30 minutes for each student to complete the questionnaire.

Findings:

Figure (1) displays that the highly learning environment stressors (LES) among nursing students were from the assignments and workload (12.14±4.19) followed by stressors from taking care of patients (10.14±4.19). The lowest LES were related to the area of practice (4.32± 2.62) and lack of professional knowledge and skills (3.90± 2.61).

Table (1) & figure (2) show that the highly used coping style among nursing students was religion (3.28 ± 1.0) which has the first rank. Acceptance (3.06 ± 0.89) and active coping (2.92 ± 0.68) were the second and third ranked among the coping strategies. on the other hand, denial (1.68 ±0.94) and substance abuse (1.08 ± 0.34) had been the least used coping styles among nursing students which are in the lower ranking

Table (2) illustrates that the highest total mean score (6.56 ±1.99) and percent score (75.99 ± 33.23) were

related to religion coping style. Whereas, the lowest total mean score (2.15 ± 0.69) and percent score (2.54 ± 11.45) were related to substance abuse.

Table 3 indicates the relationship between LES with the Brief COPE Inventory. A significant positive correlation was found between stress from taking care of patients and students' coping with self-distraction ($r=0.181, p=0.049$), substance abuse ($r=0.359, p<0.001$) and venting ($r= 0.304, p=0.001$) styles. on the contrary, negative correlation were existed between stress from assignments & workload and students using behavioral disengagement ($r= -0.344, p<0.001$), positive reframing ($r=-0.272, p=0.003$), and acceptance ($r=-0.250, p=0.006$) styles. The results also show that stress from lack of professional knowledge & skills has both positive correlation with substance abuse ($r=0.304, p=0.001$) and negative correlation with active coping ($r= -0.391, p= <0.001$), use instrumental support ($r=-0.222, p=0.016$), and religion ($r=-0.183, p=0.048$). Also, significant positive relationships present between stress from area of practice and students' coping with substance

abuse ($r=0.200, p=0.030$), behavioral disengagement ($r=0.228, p=0.013$) and humor ($r=0.272, r=0.003$). Regarding stress from peers & daily life, it was correlated positively with substance abuse ($r=0.182, p=0.048$) and negatively with acceptance ($r=-0.226, p=0.014$) styles. In addition, stress from teachers and nursing staff was correlated positively only with substance abuse ($r=0.268, p=0.003$), and negatively with the using of active coping ($r=-0.208, p=0.024$), emotional support ($r=-0.233, p=0.011$), instrumental support ($r=-0.380, p<0.001$), positive reframing ($r=-0.426, p<0.001$), acceptance ($r=-0.354, p<0.001$), religion ($r=-0.238, p=0.009$), and self-blame ($r=-0.257, p=0.006$).

Table (4) focuses on the correlation between the overall stress score and coping styles used by nursing students. It shows that a positive correlation was found related to substance abuse ($r=0.379, p<0.001$), whereas, the existed negative correlations were related to use of instrumental support ($r=-0.195, p=0.034$), positive reframing ($r=-0.310, p=0.001$), and acceptance ($r=-0.232, p=0.011$).

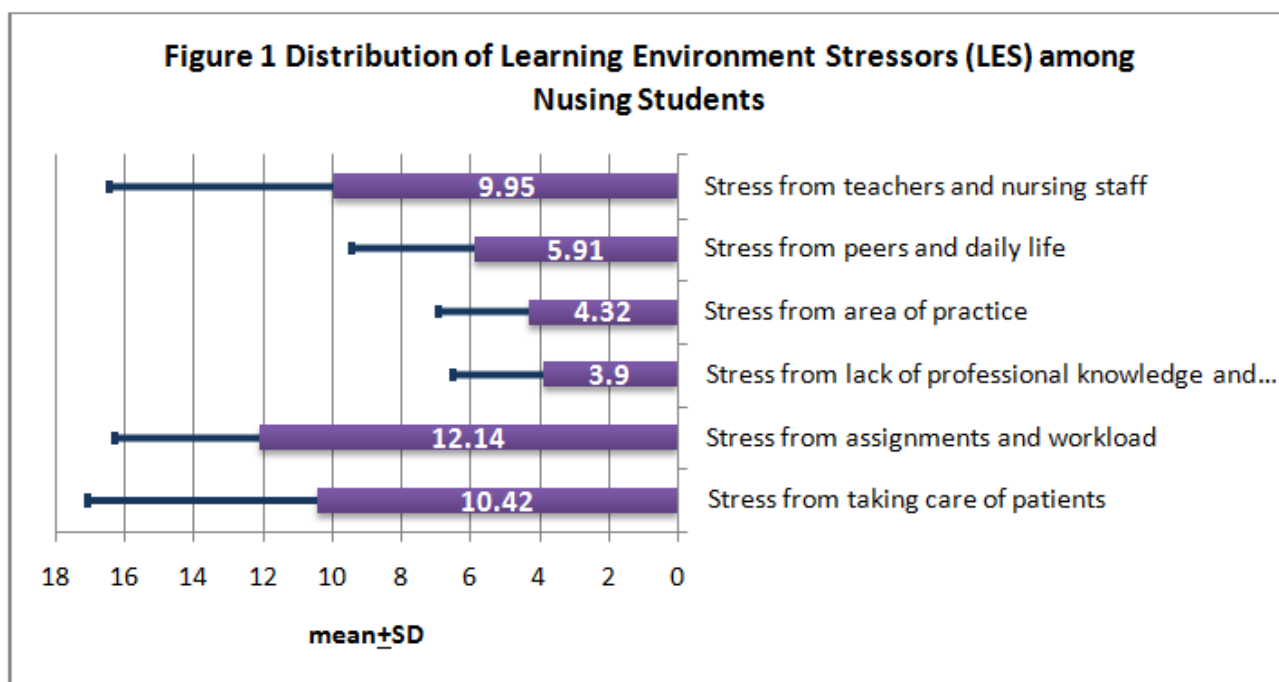


Figure (1) Distribution of learning environment stressors among nursing students

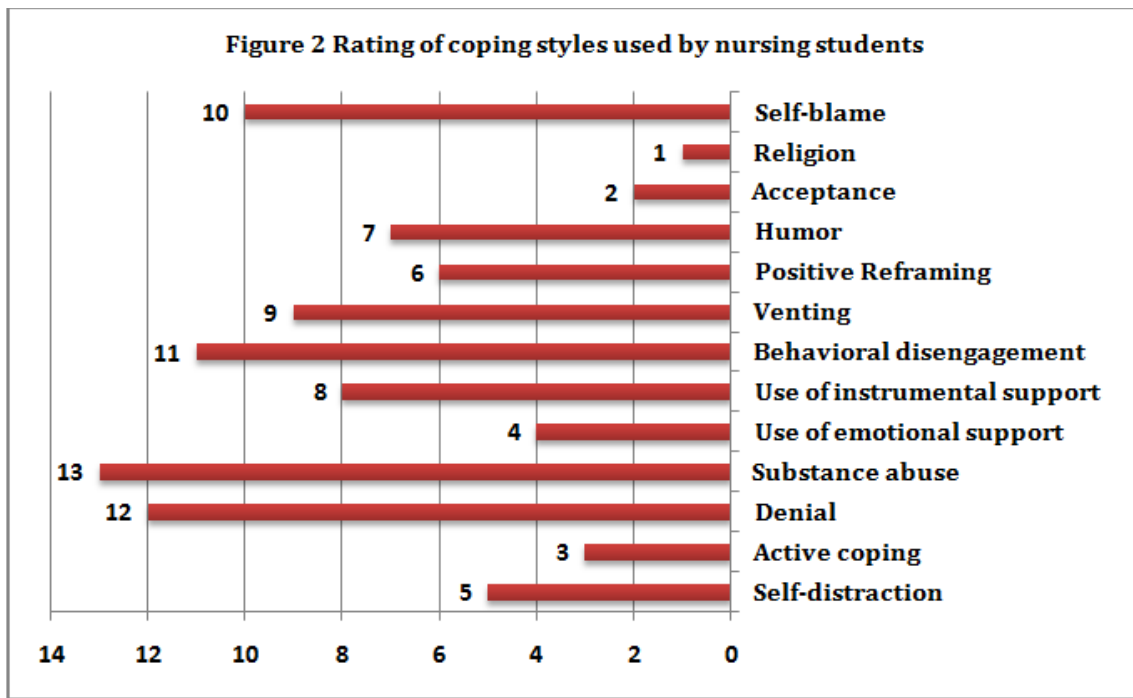


Figure (2) Rating of coping styles used by nursing students

Table(1): Descriptive analysis of the Brief COPE inventory among nursing students (n=118)

The Brief COPE	Mean	SD
Self-distraction	2.88	0.82
1. I've been turning to work or other activities to take my mind off things.	2.75	0.94
2. I've been doing something to think about it less, such as going to movies, watching TV, reading, daydreaming, sleeping or shopping.	3.02	1.06
Active coping	2.92	0.68
1. I've been concentrating my efforts on doing something about situation I'm in.	2.85	0.83
2. I've been taking action to try to make the situation better.	2.98	0.82
Denial	1.68	0.94
1. I've been saying to myself: "This isn't real."	1.75	1.07
2. I've been refusing to believe that it has happened	1.60	0.93
Substance abuse	1.08	0.34
1. I've been using alcohol or other drugs to make myself feel better.	1.08	0.46
2. I've been using alcohol or other drugs to help me get through it.	1.07	0.36
Use of emotional support	2.89	0.83
1. I've been getting emotional support from others.	2.91	0.92
2. I've been getting comfort and understanding from someone.	2.88	0.95
Use of instrumental support	2.67	0.93
1. I've been getting help and advice from other people.	2.64	0.96
2. I've been trying to get advice or help from other people about what to do.	2.70	1.05
Behavioral disengagement	2.24	1.03
1. I've been giving up trying to deal with it.	2.30	1.10
2. I've been giving up the attempt to cope	2.18	1.06

Venting	2.48	0.88
1. I've been saying things to let my unpleasant feelings escape	2.42	1.01
2. I've been expressing my negative feelings.	2.55	0.99
Positive Reframing	2.85	0.78
1. I've been trying to see it in a different light, to make it seem more positive.	2.67	1.03
2. I've been looking for something good in what is happening.	2.84	0.95
3. I've been trying to come up with a strategy about what to do.	2.89	0.90
4. I've been thinking hard about what steps to take.	3.01	0.96
Humor	2.67	0.93
1. I've been making jokes about it.	2.69	1.04
2. I've been making fun of the situation.	2.65	0.92
Acceptance	3.06	0.89
1. I've been accepting the reality of the fact that it has happened.	3.09	0.92
2. I've been learning to live with it.	3.02	0.95
Religion	3.28	1.0
1. I've been trying to find comfort in my religion or spiritual beliefs.	3.27	1.01
2. I've been praying or meditating.	3.29	1.06
Self-blame	2.46	0.92
1. I've been criticizing myself.	2.47	1.04
2. I've been blaming myself for things that happened.	2.44	0.95

Table (2): Distribution of The Brief COPE Inventory among nursing students (N = 118)

Copying styles	Total Score Mean± SD	Percentage Score Mean± SD
Self-distraction	5.76±1.64	62.71±27.36
Active coping	5.83±1.35	63.84±22.57
Denial	3.36±1.88	22.60±31.32
Substance abuse	2.15±0.69	2.54±11.45
Use of emotional support	5.79±1.67	63.14±27.81
Use of instrumental support	5.34±1.86	55.65±30.99
Behavioral disengagement	4.47±2.06	41.24±34.30
Venting	4.97±1.77	49.44±29.47
Positive Reframing	11.41±3.10	61.72±25.83
Humor	5.35±1.86	55.79±30.92
Acceptance	6.11±1.78	68.50±29.62
Religion	6.56±1.99	75.99±33.23
Self-blame	4.92±1.83	48.59±30.55

Table(3): Correlation between Learning Environment Stressors (LES) with the Brief COPE Inventory (n =118)

Brief COPE Inventory items		Learning Environment Stressors (LES)					
		Taking care of patients	Assignments & workload	Lack of professional knowledge & skills	Area of practice	Peers & daily life	Teachers & nursing staff
Self-distraction	r	0.181*	-0.028	-0.133	0.121	-0.020	-0.097
	p	0.049*	0.767	0.150	0.191	0.829	0.297
Active coping	r	-0.058	-0.137	-0.391*	-0.023	0.072	-0.208*
	p	0.531	0.138	<0.001*	0.805	0.439	0.024*
Denial	r	0.062	-0.067	-0.135	0.004	0.081	-0.014
	p	0.508	0.472	0.144	0.963	0.382	0.882
Substance abuse	r	0.359*	0.153	0.304*	0.200*	0.182*	0.268*
	p	<0.001*	0.098	0.001*	0.030*	0.048*	0.003*
Use of emotional support	r	0.050	-0.091	-0.050	0.176	-0.027	-0.233*
	p	0.588	0.326	0.590	0.057	0.774	0.011*
Use of instrumental support	r	0.015	-0.094	-0.222*	0.048	-0.070	-0.380*
	p	0.876	0.313	0.016*	0.609	0.454	<0.001*
Behavioral disengagement	r	-0.146	-0.344*	0.165	0.228*	0.162	-0.082
	p	0.115	<0.001*	0.074	0.013*	0.080	0.377
Venting	r	0.304*	-0.057	-0.075	0.139	-0.032	-0.092
	p	0.001*	0.540	0.421	0.134	0.730	0.322
Positive Reframing	r	-0.061	-0.272*	-0.292*	0.017	-0.132	-0.426*
	p	0.509	0.003*	0.001*	0.852	0.155	<0.001*
Humor	r	0.014	-0.175	-0.104	0.272*	0.115	0.073
	p	0.884	0.058	0.264	0.003*	0.216	0.430
Acceptance	r	0.072	-0.250*	-0.206*	0.033	-0.226*	-0.354*
	p	0.440	0.006*	0.026*	0.725	0.014*	<0.001*
Religion	r	0.037	0.081	-0.183*	0.063	-0.151	-0.238*
	p	0.688	0.384	0.048*	0.495	0.103	0.009*
Self-blame	r	0.002	-0.034	0.008	0.135	-0.113	-0.257*
	p	0.980	0.717	0.936	0.153	0.232	0.006*

r: Pearsoncoefficient, *:Statistically significant at $p \leq 0.05$

Table (4) Correlation between the overall stress score and coping styles used by nursing students (n=118)

		Coping styles						
		Self-distraction	Active coping	Denial	Substance abuse	Use of emotional support	Use of instrumental support	Behavioural dis-engagement
Overall stress score	r	r=0.020	-0.177	-0.001	0.379*	-0.075	-0.195*	-0.076
	p	P=0.829	0.055	0.992	<0.001*	0.420	0.034*	0.413

		Venting	Positive Reframing	Humor	Acceptance	Religion	Self-blame	
Overall stress score	r	0.070	-0.310*	0.038	-0.232*	-0.102	-0.101	
	p	0.452	0.001*	0.681	0.011*	0.273	0.285	

r: Pearson coefficient, *: Statistically significant at $p \leq 0.05$

Discussion

The current findings showed that the total stress level was moderate among nursing students. This can be interpreted due to age group of the students which increases their self-confidence and the ability to cope with stress as mature adults, their clinical experiences, and the real training experience on hospitals. Students face various stressors such as academic stressors with an obligation to succeed. Moreover, it may be difficult for the student to integrate into the education experience. Our results are congruent with Labrague L et al 2018 who reported that nursing students struggled with many difficult situations and experienced moderate to severe stress, presenting a diversity of coping strategies in the studying years¹⁵.

Regarding the sources of the stressors, Devkota and Shrestha (2018) reported that a moderate stress was coming from assignments, workload, teachers and clinical environment as well¹⁶. In the present study, the nursing students were highly stressed from the assignments; workload and stress from taken care for the patient. On the other hand, the lowest stress level was related to the lack of professional knowledge and skills. This can be attributed due to the heavy burden of patients care, need for continuous monitoring to the patient's condition, assignment need to be up to date, language challenge, and medical terminology. This is in line with Alghamdi, et al 2019 who stated that the main source of stress for the nursing students was due to their academic load, due to the variety of materials, assignments, or subjects needed from them¹⁷. Our findings also consistent with the study completed by Al-Gamal, Alhosain, and Alsunaye (2018) who stated that the most common stressors were stress from the instructors and nursing staff, course' requirements and patient care¹⁸. Bhurtun, et al (2019) mentioned that main causes of stress were the teachers and clinical staff¹⁹.

In addition, Labrague L et al. (2018) found that academic workload was the most common source

of stress as reported by more than half of the nursing students, which means that the content taught in the classes could be far from the students' expectations of the college coursework¹⁵. Moreover, a recent study done by Ab Latif R et al. (2019) found that the academic stressors were the main source of stress among the diploma nursing students²⁰.

Regards the coping approach, the current data analysis clarify that the highly rank coping style was religion as the students tend to pray, followed by acceptance and active coping. This can be justified due to the religion guidance of parents and school in Saudi Arabia; fear of god; feeling guilty if inappropriate care has been given to the patient; feeling inspired with giving help which can heal soul; growth of the ethical, personal and professional condition which help students to overcome the obstacles they met. Stress could be due to their academic load, clinical concerns, and personal problems so they accept any problem as being not the end of the world.

Bodys-Cupaketal (2019) reported that as the stress level increased, the frequency of coping using avoiding behavior increased. They interpreted that the students in the difficult situations more often relied on problem-focused strategies rather than the emotion-focused strategies²¹. Shiferaw et al. (2015) observed that the interpersonal, environmental, and academic stressors are closely linked to the unhealthy coping strategies²².

Noticeably, the present study-work found that the denial and substance abuse were the least used coping styles. This is not supported with Fares et al (2016) who confirmed that use alcohol and smoking act as coping method in the difficult situations amongst the medical students²³. But, staying optimistic; problem solving and; transference coping strategies were also used by the majority nursing students.

Concerning the overall stress among nursing students, a negative correlation was found in relation to

the substance abuse. This can be interpreted due to the religion base; knowledge of the nursing student about the harm effect of substance abuse on health. Fornés-Vives et al (2016) reported that students were least likely to cope in the difficult stress situations through the use of psychoactive substances²⁴.

On the other hand, a negative correlation was found related to the use of instrumental support; positive reframing; and acceptance. Bodys-Cupaketal (2019) noted that the students in the difficult situations ask for the social and instrumental support²¹. Bhurtun, etal (2019) indicated that nursing students managed stress using both problem- and emotion-based coping strategies¹⁹. Problem-based behaviors including staying optimistic, adopting various strategies to solve the problem, and finding meaning for the stressful events, are more effective at reducing stress than emotion-based strategies. Therefore, the nurse educators should actively engage in solving students' difficulties. Religion; acceptance; and the sense of humor were seen as independent factors.

Conclusion

Nursing students mainly stressed from assignments, workload and taking care of the patients. In addition, nursing students also seem to use some coping strategies that can help decrease their stress to pass the stressful experience faced by them. These coping strategies are confined in religion which has the highest rank among other coping strategies.

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Ethical considerations: An ethical clearance and approval for data collection was obtained from the college Scientific Research Committee after submitting the research proposal and questionnaire. All participants were informed about the objectives of the study. All students willingness to participate in the study signed an informed consent form. Confidentiality, privacy, and anonymity of the students and their responses were assured through the study.

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