

## **Perceived Stress and Coping Strategies among Nursing Students at Ras Al Khaima Medical and Health Science University in the United Arab Emirates**

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### **Abstract**

*Academic stress among college students has been a topic of interest for many years. College students especially freshmen, are particularly prone to stress due to the transitional nature of college life. They may have difficulty in adjusting to more rigorous academic expectations and the need to learn to deal with individuals of different cultural and beliefs. High perceived stress levels and lack of effective coping skills could be a barrier to achieve the challenges of the profession. **Objective:** assess perceived stress and coping strategies among nursing students at RAK Medical and Health Science University. **Setting:** The study was conducted in Ras Al Khaima medical and health science universities in nursing college. **Subjects:** The study subjects comprised 100 undergraduate nursing students at RAKMHSU, United Arab Emirates. **Tools:** They were socio-demographic profile, Perceived Stress Scale and Adolescent-Coping Orientation for Problem Experiences (ACOPE). **Results:** The majority of nursing students (91%) had low to moderate level of stress (49% and 42% respectively) and only 9% had high stress. The students adopted active coping strategies rather than avoidant and seeking professional support coping strategies. No significant difference between PSS level and gender. **Conclusion:** Nursing students at RAKMHSU had moderate levels of perceived stress; a major source of stress was academic load. The results show strong, negative correlations between perceived stress levels and coping strategies. **Recommendations:** Psych-educational program, faculty advising system and counseling services are recommended.*

**Keywords:** Perceived stress, Nursing college students, Coping strategies.

### **Introduction**

The prevalence of stresses is increasing among students in recent years<sup>(1,2)</sup>. Stress brings advantages and disadvantages depending on nursing students coping. On one hand, stress can cause students to feel distress or can motivate student for better achievement<sup>(3)</sup>. In addition to stress, Health science college students are subjected to different kinds of stressors, such as the pressure of academics with an obligation to succeed, an uncertain future and difficulties of integrating into the system in addition to clinical experience<sup>(4)</sup>.

Students experience increased tension prior to their clinical rotation and written examination especially their finals. Moreover, clinical sources of stress include those related to clinical competence, fear of failure, interpersonal relations with patients, work overload and concerns about nursing care given to the patient. Other potential sources of stress are excessive assignments, assignment submission deadlines, unclear assignments and relations with faculty members<sup>(1)</sup>. The challenges of nursing studies can be very stressful for students, with busy schedules, critical thinking

examinations, and clinical experiences at hospitals, students often feel overwhelmed. More specifically, nursing students experience higher levels of stress than other students in similar health related fields<sup>(5)</sup>. Hsieh's (2011) review of multiple studies found that nursing students experience stress from many sources including academic workload, lack of clinical experience, new roles and responsibilities, and poor relationships with clinical staff<sup>(6)</sup>.

Stress is one of the serious issues that affect university student's life. Its effect could be reflected on the students academically and on their mental health, due to the transitional nature of college life<sup>(7,8)</sup>. While studies indicate increased autonomy and independence during the transition period, students experience significant initial difficulty in adjusting to the new environment especially those who migrate for studies<sup>(9)</sup>. Literature review shows that nursing students perceive higher stress because the stress experienced during school could negatively impact patients in the Future; it is well known that nurses who care for themselves are in better positions to adequately care for their patients than nurses who do not<sup>(1,2)</sup>. Therefore, students' ability to recognize oncoming stress, assess the effects of stress on their overall well-being, and understand effective coping mechanisms can help them handle stress more effectively<sup>(10,11)</sup>.

Coping with stress for a student nurse is a dynamic and on-going process, aimed at the maintenance of individual integrity, restoration of imbalance and disequilibrium<sup>(1)</sup>. Students will only perceive a situation as stressful if they feel that it threatens their internal or external resources. Depending on how students perceive the situation, they will choose certain coping strategies over others<sup>(4)</sup>. Based on existing literature, nursing students may use emotional- focused coping strategies or problem-focused strategies<sup>(12,13)</sup>. Nursing college is an ideal time for students to become aware of the

importance of self-care and its impact on their lives as future health care providers<sup>(14)</sup>. There is a need to review the nursing curriculum and evaluate what impacts students' stress levels, and recognize the effective role of academic advisor to reduce the stress levels of nursing students and enhance students coping strategies. Hence, it is important to assess Perceived Stress and Coping Strategies among Nursing Students at Ras Al Khaima nursing college.

### ***Aim of the Study***

The aim of the study is to identify degree of stress and coping strategies perceived by nursing students at Ras Al Khaima Medical and Health Science University, United Arab Emirates.

### **Research Questions:**

1. What is the level of stress among nursing students?
2. What are the sources of such stress?
3. Are there any statistically significant differences in the stress level attributed to any variable of socio-academic data?
4. What are the coping strategies used by nursing students at RAKMHSU?

### ***Materials and Method***

#### ***Materials***

**Design:** A descriptive explorative design was used for this study.

**Setting:** The study was conducted at all nursing departments of the faculty of nursing college at Ras Al Khaima Medical and Health Science University (United Arab Emirates).

**Subjects:** The study comprised 100 undergraduate nursing students registered in nursing course, academic year 2010-2011 from a total 112 RAKMHSU, United Arab Emirates.

**Tools:** To collect data for the present study, the following tools were used:

**Tool I: Student's Basic Data Structured Questionnaire**

It was developed by the researcher in order to identify the student's personal and academic data. The first section, data about the student's socio-demographic characteristics as age, gender, nationality, academic year, residential status and GPA scores (last semester). The Second section was an open-end question related to sources of stress.

**Tool II: Perceived Stress Scale (PSS=14)**

It is a 14-items measure designed to determine one's perception of his/her stressfulness. This scale is used to measure subjectively experienced stress level among college students based on their feelings and thoughts in the last one month (self-report instrument). The total score of the PSS is obtained by reversing the scores of items 4, 5, 6, 7, 9, 10, and 13 (in the following manner: 0=4, 1=3, 2=2, 3=1, and 4=0) and subsequently adding the 14 item scores (Cohen, Kamarck & Mermelstein, 1983)<sup>(15)</sup>. It is a five-point Likert scale varying from 0=never, 1=almost, 2=sometimes, 3=fairly often, to 4=very often.

**Tool III: Adolescent-Coping Orientation for Problem Experiences (ACOPE)**

The A-COPE is a coping inventory designed to explore adolescent coping behaviours. The A-COPE contains 12 subscales that reflect 12 different coping patterns: ventilating feelings, seeking diversions, developing self-reliance and optimism, developing social support, solving family, avoiding problems, seeking spiritual support, investing in close friends, seeking professional support, engaging in demanding activity, being humorous, and relaxing by the author (Patterson & McCubbin, 1987)<sup>(16)</sup>. It is a 5-point Likert scale varying from 0=never, 1=hardly, 2=sometimes, 3=often, 4=most of the time.

***Method***

- An official permission for data collection was obtained from the vice dean of nursing college to carry out the study after explaining the aim.
- Tool II and III were translated from English into Arabic; and tested for content validity by a jury of 5 experts in psychiatric and mental health nursing. The Reliability of the tools was tested by the using test-retest method.
- A pilot study was conducted on 15 college students randomly from all academic years to ensure the clarity and applicability of the developed tool as well as to estimate the time needed to complete the tools.
- The total study for nursing students/semester was 15 weeks and the students were filling the sheet in the middle of the term (8th week). The students were filling the students stress test before their send up examination in order to address confounding factors for stress other than examination.
- The data collection involved a period of six months starting from the first of December 2010 till the end of May 2011.

**Ethical considerations:**

A written consent was obtained from the students after explaining the purpose of the study.

***Statistical Analysis***

The statistical analysis was done by using Statistical Package for Social Sciences (SPSS) version 20 was used for analysis. Spearman's correlation was calculated to find relationship between PSS and both GPA and coping strategies.

## Results

**Table (1)** describes socio-demographic characteristics of the studied nursing students. It was observed that the great majority (83%) of nursing students were females, their age ranged between 17 to 20 years, 84% were resided in the college campus/ hostel, and 63% non-Arab. As regards academic year, it can be noticed that 38% were in the 1st academic year while half of the students between the 2nd and 3rd academic year (22% and 29% respectively). Speaking about GPA, two third of students were taking the place from 3.0 to 3.5 GPA (31% and 34% respectively), with a Mean±SD.  $3.04 \pm 0.59$ .

**Figure (1)** The percentages of perceived stress level among nursing students. The majority of nursing students (91%) had low to moderate level of stress (49% and 42% respectively) and only 9% had high stress.

**Table (2)** Frequency percentages of perceived stress level by nursing students. Nursing students reported that very often perceived stress effectively, successfully and feeling confident about ability to handle personal problems, able to control irritation in life and they were on the top of things and were thinking about the things that to be accomplished (69%, 55%, 50%, and 41% respectively). On the other hand , the students reported that never being upset ,feeling nervous or unable to could not cope with all things that could be do ( 10%, 14%, and 5% respectively).

**Table (3)** Frequency percentages of coping strategies used by nursing university students. The most commonly used strategy by the students tried to cope with the stress by Developing social support through Keep up Friendships, Help other People, Apologize to People Say Nice Things to Others (72.0%, 69.0%, 68.0%, and 67.0%), Solving family problems through Go along with parents request, Talk to parents and Talk to brother or sister (66.0%, 63% and 51% respectively). Further, it has been seen that most of the time , students reported that

stress was relieved to some extent by seeking spiritual support by performing prayers (64%), seeking diversions by listen to the music ,read or watch T.V (59% and 61% respectively), divert their mind and relax themselves during the period of stress (57%). In addition to engaging in demanding activities such as work hard on school work or projects (65%). In the area of self-reliance, students reported that most of the time tries to think in good things and make their own decisions (62%). ACOPE showed that around 29% of the nursing students try to ventilating their feelings by being angry or crying.

It has been further shown that the least common strategies used by nursing students to cope with stress were avoiding coping through smoking or using drugs (91%) and seeking professional support or getting professional counseling or help (72%) and being with the boy/girlfriend (83%).

**Table (4)** Comparison between Male and Female nursing students according to Sources of Stresses. It was found a statistical significant difference between male and female nursing students and their sources of stresses regarding exam stress, no of study hours and curriculum/clinical area ( $P=0.012^*$ ,  $0.007^*$  and  $0.020^*$  respectively).

**Table (5)** shows a comparison between male and female nursing students according to their stress level. It was found that 43.4% of female nursing students comparing with 35.3% of male students had a moderate perceived stress level, and only 8.4% of female nursing students had severe perceived stress level. Female students Mean±SD was  $48.02 \pm 16.74$ , while male students Mean±SD was  $41.39 \pm 22.31$ . There is no significant difference between gender and their stress level  $t(p) = 1.161 (0.259)$ .

**Table (6)** Depicts correlation between perceived stress score levels of nursing students with age. It was observed that students between 19-21 years of age (77%) were having moderate level of stress while

8% on the same age group had severe degree of stress. There is statistical significant difference between levels of stress and age  $P=0.034^*$ .

**Table (7)** illustrates correlation between Perceived Stress score levels of nursing students with their GPA and Coping strategies. As regard to GPA, no statistical significant difference was found with perceived stress ( $r=-0.014$  and  $p=0.892$ ). While a negative significant difference between PSS versus Coping strategies regarding  $r$  and  $p$  ( $-0.254^*$ ,  $0.011^*$  respectively).

### Discussion

College life is one of the most memorable experiences in an adolescent's life. Researches yet have attached stress to such experience and little research has been conducted on adolescent's college students<sup>(6)</sup>. The aim of this study was to identify degree of stress and coping strategies perceived by nursing students at Ras Al Khaima Medical and Health Science University.

The results indicate that studied university nursing students experienced a moderate stress level (Figure1). Half of the students felt anger, nervousness, and were unable to cope and felt difficulty to overcome stress (Table2). This was consistent with many studies about stress prevalent in nursing students in Health Science Universities<sup>(13,17,18)</sup>. This may be due to the fact that those students faced a transition shock from school to university in addition other stressors, mainly social and academic ones overwhelm college students. Social stressors are the result of the facts that students come from different cities and they try to build new relationships with others. Also, the majority of them live in campus away of their families. While academic stressors may result from the long hours of theoretical and practical parts of nursing courses, in addition to the diversity of clinical experiences. Students face more stressors when they come to college during

the first year of their training because of being placed in an unfamiliar environment. This result is in the same line with other studies who revealed that about two thirds of nursing students had moderate stress level<sup>(1,13)</sup>. Another finding goes in line with a longitudinal qualitative study among Swedish nursing schools who had reported moderate stress level by students<sup>(19)</sup>.

The results indicated that 9% of student's experienced severe levels of stress. This finding is consistent with the findings of previous studies that nursing students experience high levels of stress as a result of academic, interpersonal, intrapersonal, social and financial factors<sup>(4,5,29)</sup>.

Regarding perceived stress level and socio-demographic characteristics. Findings did not reveal statistical significant association between perceived stress level and gender (table 5). This finding however is inconsistent with Tajularipin et al. (2009) who found a statistically significant difference in the reported levels of the various categories of stress among male and female students<sup>(20)</sup>. Moreover, the present study shows no statistical significant difference was found between perceived stresses and GPA (Table7). This finding however is inconsistent with the latest American College Health Association (ACHA, 2014) report indicating that Stress has a negative impact on academic performance<sup>(21)</sup>. On the other side, the present study revealed that students age affect perceived stress (Table 6). This can be explained that students of first and second year had more stress than other following years. The results can contradict those of Hamaideh (2011) stated an increasing rate level of perceived stress among third and fourth year students lead to academic decline<sup>(8)</sup>.

In general, there is a global perception that stress is associated with nursing education. The nursing students were constantly facing demands and challenges leading to stress during their total training

program<sup>(6)</sup>. Previous results also proved the main source of stress that affect student's mental health is academic stressors (table 4). This is related to exam stress, frequency of examinations, no of study hours, curriculum/clinical area, lack of activities as well as lack of professional guidance and discouraging. This could be explained that problem-based learning (PBL), objective structured clinical exam (OSCE) and self – directing learning (SDL) as a new learning strategies in nursing curriculum at RAKMHSU are the major sources of stress than traditional teaching methods as lectures and hand-out, which become necessary in the nursing training as a tool for evaluation/assessment, increase self-confidence, decision making ability, and to encourage student learning. Some students perceive OSCE as a burden while others consider them helpful for learning. This result is in accordance with other studies carried out by Dyrbe (2009) and Khan et al (2006) indicating higher stress in the female students in Canada and United States where the most important sources of stress for the students were academic pressures, related to nursing training among the first year students in a new problem–based nursing curriculum<sup>(22,23)</sup>. Another finding is in agreement with the present study where the major stressors identified by the students were related to academics<sup>(24)</sup>.

There is great disparity in the type stressors perceived by female and male students in this study, in which female students had more stressors than male nursing students (table 4). This could be explained by the fact that females are more subjected to the community pressure and still under the pressure of the cultural habits. Similarly, these findings are consistent with Kadayam Gomathi and Jayadevan (2013), Abdulghani et al. (2011), and El-Zubeir et al. (2010) who reported that the prevalence of stress is increasing among female students in higher education due to the additional stress of course workload, lack of leisure time, material to be learned, methods of learning, and frequent academic

examinations in a competitive environment and group work<sup>(17,18,25)</sup>. In this respect, Melinda (2015) stated that Participation in physical activity classes taken for credit has been found to assist undergraduate students in controlling the stress related to coursework<sup>(26)</sup>.

Coping is an important construct in understanding how adolescents react to the extensive stressors and adjustments they experience<sup>(4)</sup>. In relation to coping, the present study proved that the majority of the students used problem –focused strategies which mean take action to face stress as "seeking social support", "Solving family problems", "Seeking spiritual support", "Seeking diversion", "Relaxing", and "Self-Reliance" are the most common and "Seeking professional support" through get professional counselling is the least common coping strategy identified in nursing students (table 3). These results may reveal the availability of academic guidance which assists nursing students in understanding the purpose of the curriculum and foster them towards academic success, self-development and lifelong learning. This is in combination with preparing students with courses as communication skills, time and stress management techniques. Furthermore, RAKMHSU is on the process of accreditation through credit hour system which enables students for self-reliance and decides their own subjects through availability of elective courses. This finding is consistent with the findings of a similar study among nursing students at Chiang Mai University which revealed that the most frequently used coping strategies were seeking social support (62.25%), planful problem solving (23.73%) and accepting responsibility (8.47%)<sup>(28)</sup>. A study done by Dhar et al. (2009) reported the five most frequently used coping strategies were positive thinking, listening to the music/radio, solving family problems, talk to parents and pray more<sup>(29)</sup>. Also, Singh et al (2011) found that the most commonly used coping strategies transference was used by 77.3 % of the students to relax via

TV, movies, a shower, and shopping, sleeping and physical exercises<sup>(3)</sup>. On the contrary, the study findings were inconsistent with the findings of the study done on Iranian students which reported being humorous as the least common used strategy<sup>(30)</sup>.

There was a negative significantly perceived stress level was found to be correlated with coping strategies (table 7). This finding incongruent with Hegge (2008) who reported that students who rated their stress during the nursing program as extreme were not statistically different on the use of coping strategies than those who rated stress as moderate to low<sup>(31)</sup>.

There is increase evidence that leads us to believe that nursing students who can at least make the effort to regulate emotions will be less vulnerable to stress inappropriate stress reactions<sup>(7)</sup>. The current study found that students reported that ventilating feelings are the least used coping strategy. "Avoidance", and "seeking professional support", were also less used coping strategy to the stress experienced (Table 3). This may due to the cultural habits and religion in gulf areas who usually avoid lifestyle of coping.

### **Conclusion**

Nursing students at RAKMHSU had moderate levels of perceived stress; a major source of stress was academic load. The results show a strong, negative significant relationship between Perceived stress levels and coping strategies.

### **Recommendations**

*Nursing students are on the borderline risk. It is recommended that:*

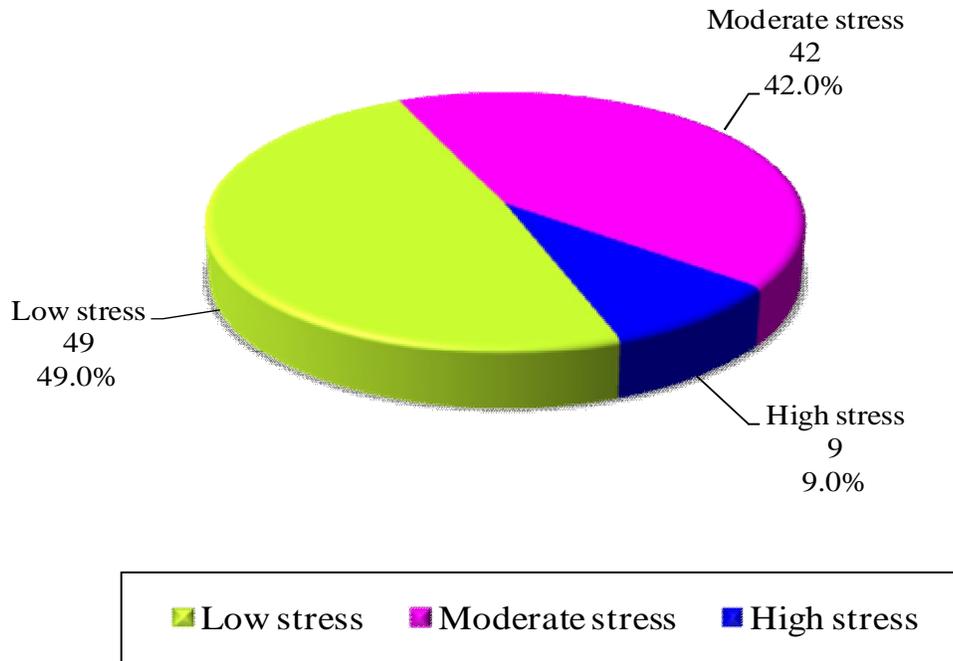
- **Psych-educational program** that contains stress risk factors, healthy life style, time management strategies, relaxation techniques, and exploration of adaptive and maladaptive way of coping patterns regarding stress situations.
- **Faculty advising system** should strengthen academic advisor role. Academic advisor should emphasise on the importance of students and faculty handbook during student's orientation. This will give clear goals and university standards from the beginning to overcome student's confusion and unknown. Academic guidance should be enforced within college to follow students, not only for academic issues but social, personal and intrapersonal concerns.
- **Counseling services** which enhance free counselling services to college students from career counsellors. Promote counselling programs to staff faculty via conferences, seminars and new training course.
- **Research:** Future researches could also use larger samples, qualitative methodologies or conduct longitudinal studies. Comparative studies among different nursing colleges in UAE.

### **Limitations of the study:**

Students being of same class and same institution. The sample size also limited and data collection as well as some of the student's decision not to respond to the questionnaire. Therefore, it is difficult to generalize and apply the results of this study to different nursing colleges.

**Table (1): Socio-demographic and academic characteristics of the studied nursing students**

<b>Socio-demographic characteristics</b>	<b>(No=100)</b>	<b>%</b>
<b>Age</b>		
17 –	30	30.0
19 –	50	50.0
21 –	17	17.0
≥23	3	3.0
<b>Total</b>	100	100
<b>Gender</b>		
Male	17	17.0
Female	83	83.0
<b>Total</b>	100	100
<b>Nationality</b>		
Arab	37	37.0
Non-Arab	63	63.0
<b>Total</b>	100	100
<b>Academic</b>		
1 <sup>st</sup>	38	38.0
2 <sup>nd</sup>	22	22.0
3 <sup>rd</sup>	29	29.0
4 <sup>th</sup>	11	11.0
<b>Total</b>	100	100
<b>Residency</b>		
University Hostel	84	84.0
Other	16	16.0
<b>Total</b>	100	100
<b>GPA</b>		
2.0	15	15.0
2.50	12	12.0
3.0	31	31.0
3.50	34	34.0
4.0	8	8.0
<b>Total</b>	100	100
<b>Min. – Max.</b>	<b>2.0 – 4.0</b>	
<b>Mean ± SD.</b>	<b>3.04 ± 0.59</b>	



**Figure (1): level of Stress among Nursing Students**

**Table (2): Frequency percentages of perceived stress level by nursing students (n=100)**

<b>Items of Perceived Stress scale (PSs=14)</b>	<b>Never %</b>	<b>Sometime %</b>	<b>Very Often %</b>
Being upset that happened unexpectedly	10 (10.0%)	55 (55.0%)	35 (35.0%)
Feeling of unable to control the important things in life	31 (31.0%)	47 (47.0%)	22 (22.0%)
Feeling nervous and "stressed"	14 (14.0%)	52 (52.0%)	34 (34.0%)
Able to deal successfully with day to day problems and annoyances	20 (20.0%)	55 (55.0%)	25 (25.0%)
Feeling effectively coping with important changes that were occurring in life	21 (21.0%)	55 (55.0%)	24 (24.0%)
Feeling confident about ability to handle personal problems	6 (6.0%)	25 (25.0%)	69 (69.0%)
Feeling that things were going according to own way	27 (27.0%)	46 (46.0%)	27 (27.0%)
Feeling unable to could not cope with all things that should be do	5 (5.0%)	50 (50.0%)	45 (45.0%)
Able to control irritation in life	8 (8.0%)	37 (37.0%)	55 (55.0%)
Feeling on top of things	7 (7.0%)	43 (43.0%)	50 (50.0%)
Being angered because things were happening outside of control	20 (20.0%)	50 (50.0%)	30 (30.0%)
Thinking about the things that to be accomplished	6 (6.0%)	53 (53.0%)	41 (41.0%)
Able to control the way of spending time	22 (22.0%)	51 (51.0%)	27 (27.0%)
Feeling that difficulties were piling up so high that they could not be overcome	19 (19.0%)	48 (48.0%)	33 (33.0%)

**Table (3): Frequency percentage of coping strategies used by nursing university students (n=100)**

<b>Coping strategies</b>	<b>Never %</b>	<b>Sometime %</b>	<b>Most of the time %</b>
<b>Ventilating Feelings</b>			
Complain to Friends or Family	21 (21.0%)	42 (42.0%)	37(37.0%)
Swear Cry Angry / be Sarcastic	29 (29.0%)	42(42.0%)	29(29.0%)
<b>Seeking Diversions</b>			
Read Sleep / Watch T.V / Go To Movie	10 (10.0%)	29 (29.0%)	61(61.0%)
Listen To Music / Shopping / Play Games	14 (14.0%)	27 (27.0%)	59(59.0%)
<b>Relaxing</b>			
Enjoy on hobby / Eat Food / Enjoy Day Dream / Ride Around in The Car	15 (15.0%)	28 (28.0%)	57(57.0%)
<b>Self-Reliance</b>			
Get More Involved in School Activities / Job	10 (10.0%)	39 (39.0%)	51(51.0%)
Think in Good Things / Make Your Own Decisions	9(9.0%)	29(29.0%)	62(62.0%)
Tell to Yourself That Problem(s) are Not Important	30(30.0%)	35(35.0)	35(35.0)
<b>Developing social support</b>			
Blame Others for What's Going on	65(65.0%)	32(32.0%)	3(3.0%)
Say Nice Things to Others	7 (7.0%)	26(26.0%)	67(67.0%)
Apologize to People	9 (9.0%)	23(23.0%)	68(68.0%)
Keep up Friendships / Make New Friends	9(9.0%)	19(19.0%)	72(72.0%)
Help Other People Solve Problems	6(6.0%)	25(25.0%)	69(69.0%)
<b>Solving family problems</b>			
Talk to your parents	15(15.0%)	22(22.0%)	63(63.0%)
Talk to your brother or sister what bothers you	21 (21.0%)	28 (28.0%)	51(51.0%)
Go along with parents request	9 (9.0%)	25 (25.0%)	66(66.0%)
<b>Avoiding</b>			
Smoke / Use Drugs	91 (91.0%)	4 (4.0%)	5 (5.0%)
Away From The Home	42 (42.0%)	25 (25.0%)	33(33.0%)
Try to See Good Things in The Problem	18 (18.0%)	34 (34.0%)	48(48.0%)
<b>Seeking spiritual support</b>			
Go to church / mosque Pray	12 (12.0%)	24 (24.0%)	64(64.0%)
<b>Investing in close friends</b>			
Be close with someone your care about	8 (8.0%)	27 (27.0%)	65(65.0%)
Be with a boyfriend or girl friend	83(83.0%)	5(5.0%)	12(12.0%)
<b>Seeking professional support</b>			
Professional Counseling	72 (72.0%)	22 (22.0%)	6 (6.0%)
Talk to Counselor What Bothers You	47 (47.0%)	45(45.0%)	8(8.0%)
<b>Engaging in demanding activities</b>			
Do physical activity	25 (25.0%)	50 (50.0%)	25(25.0%)
Improve Yourself (Get Body in Shape / Better Grades)	16 (16.0%)	40(40.0%)	44(44.0%)
Work hard on School Work / Projects	9(9.0%)	26(26.0%)	65(65.0%)
<b>Being Humorous</b>			
Joke and Keep a Sense of Humor	5(5.0%)	42(42.0%)	53(53.0%)
Be Funny	2 (2.0%)	39(39.0%)	59(59.0%)

**Table (4): Comparison between male and female nursing students according to sources of stresses**

Sources of Stresses	Male		Female		P
	No.	%	No.	%	
<b><u>Health-related stressors</u></b>					
Health problems	4	23.5	14	16.9	0.501
Poor physical health	1	5.9	11	13.3	0.685
<b><u>Academic stressors</u></b>					
<b>No of study hours</b>	<b>2</b>	<b>11.8</b>	<b>39</b>	<b>47.0</b>	<b>0.007*</b>
Faculty/ School	3	17.6	18	21.7	1.000
Discouraging	3	17.6	5	6.0	0.133
Laws	4	23.5	8	9.6	0.119
<b>Curriculum/ clinical</b>	<b>0</b>	<b>0.0</b>	<b>22</b>	<b>26.5</b>	<b>0.020*</b>
Lack of professional guidance	5	29.4	22	26.5	0.772
Career change	0	0.0	5	6.0	0.585
<b>Exam stress</b>	<b>12</b>	<b>70.6</b>	<b>78</b>	<b>94.0</b>	<b>0.012*</b>
<b><u>Psycho-social stressors</u></b>					
Family /relatives problems	5	29.4	28	33,7	0.730
Lack of activities	11	64.7	42	50.6	0.424
Lack of employment after graduation	2	11.8	12	14.5	1.000

p: p value for Chi square test

\*: Statistically significant at  $p \leq 0.05$

**Table (5): Comparison between male and female nursing students according to their stress level**

Perceived Stress level (PSS levels)	Male (n = 17)	Female (n = 83)
Low (<50%)	9 (52.9%)	40 (48.2%)
Moderate (50% - <75%)	6 (35.3%)	36 (43.4%)
Severe (≥75%)	2 (11.8%)	7 (8.4%)
$\chi^2$ (MC p)	0.458 (0.795)	
<b>Total score</b>		
Min. – Max.	3.0 – 22.0	3.0 – 25.0
Mean ± SD.	11.59 ± 6.25	13.45 ± 4.69
Median	11.0	14.0
<b>Mean% score</b>		
Min. – Max.	10.71 – 78.57	10.71 – 89.29
Mean ± SD.	41.39 ± 22.31	48.02 ± 16.74
Median	39.29	50.0
<b>t(p)</b>	1.161 (0.259)	

$\chi^2$ : value for Chi square test      MC: Monte Carlo test      t: Student t-test

**Table (6): Correlation between perceived stress score levels of nursing students with age**

Age	PSS levels			$\chi^2$ Test	MC P_Value
	Low (<50%)	Moderate (50% <75%)	Severe (≥75%)		
	(n = 49)	(n = 42)	(n = 9)		
17 –	20 (40.8%)	10 (23.8%)	0 (0.0%)	<b>13.298</b>	<b>0.034*</b>
19 –	19 (38.8%)	23 (54.8%)	8 (88.9%)		
21 –	7 (14.3%)	9 (21.4%)	1 (11.1%)		
≥23	3 (6.1%)	0 (0.0%)	0 (0.0%)		

$\chi^2$ : value for Chi square test      MC: Monte Carlo test

**Table (7): Correlation between PSS levels of nursing students with their GPA and Coping Strategies**

Items		GPA	Coping score
PSS	r	-0.014	-0.254*
	p	0.892	0.011*

r: Pearson coefficient

\*: Statistically significant at  $p \leq 0.05$ .

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