

Stressors and Coping Strategies among Nursing Students in Faculty of Nursing at Zagazig University

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Abstract:

Background: Stressors are any real or perceived physical, social, or psychological event or stimulus that causes bodily reaction or response. **Aim of the study:** Determine the stressors and coping strategies among nursing students in faculty of nursing at Zagazig University. **Subject & Methods: Research Design:** A cross sectional descriptive design was utilized to conduct this study. **Setting:** The study was conducted in faculty of nursing at Zagazig University. **Subjects:** The study sample included 440 nursing students recruited from four grades from nursing students. **Tools of data collection:** Two tools were used to collect the necessary data. The first tool included two parts to collect data. The first part about demographic characteristics and the second part was self-administered questionnaire, student stress survey. The second tool was adolescent coping orientation for problem experiences. **Results:** The study findings revealed that 82.3% of the nursing students were from rural area. Additionally, (75.6%) Of nursing students in the first grade suffered from interpersonal stressors related starting new year. Finally (47.4%) of the fourth grade of the nursing students reported they exposed interpersonal stressors of working with unknown persons compared to 44.2% of first grade. **Conclusion:** The highest source of stressors among the nursing students was the environmental stressors and the lowest source was academic stressors. The highest coping strategies used by the nursing students were being humorous and seeking spiritual support and the lowest is ventilating of feelings. **Recommendations:** Continues activation of the class leader hours to discuss the problems to alleviate the stressors among nursing students.

Keywords: Stressors, Coping Strategies, Nursing students, Faculty of Nursing.

Introduction:

Stress is a pervasive and tricky piece of daily life and in the workplace.

⁽¹⁾ Stress can be identified as a multi-dimensional phenomenon that is focused on a dynamic relationship between the individuals and the environment.⁽²⁾ Although some degree of stress is essential to stimulate and motivate individuals to achieve their goals.⁽³⁾ Stress can be a barrier for concentrating, problem solving, decision making.⁽⁴⁾ Thus, there are two types of stressors, positive stressors which is known as eustress and negative stressors which is also known as distress.⁽⁵⁾

Every profession is effected by stress but the health professionals are more at risk to stress especially nursing profession.⁽⁶⁾ Nursing is one of the most stressful professions in the world.⁽⁷⁾ Hence, adjusting to a nursing career is very stressful. It has been identified as a high- stress profession

that is not just physically but also emotionally and intellectually demanding.⁽⁸⁾

Also nursing profession is considered as a stressful and demanding job.⁽⁹⁾ Nursing students face stressful events in their study period that lead to negative consequences in their academic, professional and personal life⁽¹⁰⁾. The process of education is a very stressful experience. ⁽¹¹⁾Nursing students have the same stressors as other college students.⁽¹²⁾ While nursing students experience a clinical component, which is highly stressful due to the students' unfamiliarity with clinical settings, handling highly technical equipment and deal with patients, thus enhancing their fear of making mistakes.⁽¹³⁾

Sources of stress are more specifically defined as a unique set of stressful encounters among student

which includes, difficult financial challenges, domestic responsibilities, responsibilities related to holding a job in faculty, and a heavy academic load.⁽¹⁴⁾ Sources of stressors among nursing students were grouped under four categories, the first one being interpersonal stressors which results from interactions with other people. Also the second is intrapersonal stressors which result from internal sources. The third pertains to academic stressors.⁽¹⁵⁾ Finally, the fourth relates to environmental stressors.⁽¹⁶⁾ There are certain signs and symptoms that reflect the existence of stress. Relevant literature classifies stress symptoms into physical, emotional, behavioral, and cognitive.⁽¹⁷⁾ Stress could lead to serious health problems with a wide variety of both physiological and psychological symptoms such as; anxious, irritability, decreased concentration, digestion problems, eating disorders, frequent backache, headaches, mood swings, nervousness, tremors, and sleep disorders.⁽¹⁸⁾

Stress management can be applied as a set of coping strategies to deal with threatening events, manage stressful situations or to control the student's physical and emotional reactions that reduce stress levels in order to improve quality of life.⁽¹⁹⁾ Coping strategies are defined as the cognitive and behavioral approaches that individuals employ during stressful circumstances to restore their psychological or emotional stability.⁽²⁰⁾

The Adolescent Coping Orientation for problem Experiences (ACOPE) is a coping designed to explore a student coping behaviors that result from the normal adolescent stress associated with trying to create a balance between being connected and independent from one's family. The ACOPE can be used as one single scale and divided into 12 sub-scales that reflect 12 different coping strategies as ventilating of feelings, seeking diversion, developing self-reliance and optimism, relaxation,

developing social support, solving family problem, avoiding family problem, seeking spiritual support, investing in close friends, seeking professional support, engaging in demand activities, and being humorous.⁽²¹⁾

Significance of the study:

Nursing education is considered as one of the most crucial element for improving the quality of professional identity of future nurses. Therefore, there is a real need to determine sources of stressors and how nursing students cope with these stressors to emphasize positive coping strategies that may not only help promote a healthy lifestyle

Aim of the study

The aim of the study was to determine the stressors and coping strategies among nursing students in faculty of nursing at Zagazig University.

This was accomplished through the specific objectives:

- Determine the sources of stressors among nursing students at Zagazig University.
- Identify the coping strategies among nursing students at Zagazig University.

Research questions:

What are the sources of stressors among nursing students at Zagazig University?

What are the coping strategies used by students in faculty of nursing at zagazig university?

Subjects and methods:

Research design:

A cross sectional descriptive design was used in this study.

Study setting:

This study was conducted in the faculty of nursing at Zagazig University.

Study subjects:

Randomized sample was selected among undergraduate nursing

students enrolled in years 1–4 (2015/2016) of the faculty of nursing at Zagazig University chosen for having enough target students for sample size selection. The sample size was using Epi-Inf package, version 6.04, sample size was calculated to be 440. Calculation of sample size was done depending on 85% power of the test and 95% confidence interval. Calculation relies on prevalence rate 54% (Eliza, 2015).

The total numbers of students were 440 and recruited from four grades (2015/2016) from official faculty files. 86 students from 420 in first grade, 128 students from 533 students in second grade, while third grade 132 students from 551, and fourth grade 94 students from 450.

Tools of data collection:

The researcher used two different data collection tools, namely student stress survey, and adolescent coping orientation for problem experiences.

Tool I: Self-administrated questionnaire developed by the researcher after reviewing the related literature. It consists of two parts

Part A: Demographic data of nursing students composed of four sections.

Section 1: Entails questions about demographic characteristics of the nursing students. It composed of 10 questions as age, gender, residence, marital status, birth order, grade, working, save the work salary, living with and crowding index.

Section 2: It contains questions about family characteristics of the study students. It consisted of 9 questions as father and mother education, father job, mother job, income, relations of the students with their mother and father also their relations with his/her siblings and entertainment at home

Section 3: It consisted of questions about student study features. It composed of 3 questions as studying hours per day, time to reach faculty and choose of faculty according to their own desire

Section 4: It composed of one question about their own opinion about

their profession as nurse from social view postgraduate from the faculty.

Part B: Self-administrated questionnaire, student stress survey was adapted by Insel & Roth, ⁽²¹⁾ to determine the sources of stressors among nursing students. It consisted of 49 questions divided into four categories of potential sources of stressors, interpersonal sources (Q24-29), intrapersonal stressors (Q30-45), academic stressors (Q46-64), and environmental stressors.

• Scoring system:

For each source of stress give score divided into yes=1 and no=zero. Total score of sources of stress was 49 points. The students score was less than 33.3% considered low, 34.3-66.6% considered moderately and more than 66.6% considered high. Based on statistical analysis.

Tool (II): Self-administrated, adolescent coping orientation for problem experiences was adapted by Patterson & McCubbin, ⁽²²⁾ to assess coping strategies among nursing students. Composed of twelve categories and 55 questions, ventilating of feelings (Q1-7), seeking diversion (Q8-15), relaxation (Q16-19) self-reliance (Q20-25), developing social support (Q26-32), solving family problems (Q33-38), avoiding problems (Q39-43), seeking for spiritual support (Q44-46), investing in close friends (Q47-48), seeking professional support (Q49-50), engaging in demanding activities (Q51-53), and being humorous (Q54-55).

Scoring system:

For each coping strategies give score divided into never=zero, sometimes=1 and always=2. The total score was 110 points. The student coping strategies was less than 50% considered low, 50 %-< 75% considered moderately and 75% or more considered had highly coping strategies.

Content of Validity & reliability:

The validity of data collection tools was tested by five experts, three from the Faculty of Nursing (Administrative Nursing, Medical Surgical department and Community health nursing), and two from the Public health department at the Faculty of Medicine, Zagazig University. These experts assessed the tool for clarity, relevance, application, comprehensiveness, and understanding. This constituted the face and content validation of the tool; all recommended modifications in the tool were done. Reliability of the proposed tools was done by Cronbach' Alpha test, it was (0.834) for **tool I**, and (0.796) for **tool II**.

Field work:

Upon securing all official permissions, the process of data collection was started in March 2016 to the end of June 2016. The researcher first introduced herself and explained the purpose of the research briefly to the four grades students at faculty of nursing, Zagazig University and invited them to participate. Those who gave their verbal consent to participate. The time consumed for answering the study questionnaire ranged from 30-40 minutes. The researcher performed the fieldwork three days weekly (Saturday, Monday and Wednesday).

Pilot study:

Before performing the main study, a pilot study was carried out on 10% (44 students) of the study sample. The purpose of pilot study was to test the questions for any ambiguity, practicability, applicability, and feasibility of the tool and then the necessary modification were done. It also helped the researcher to determine the time needed for filling out the forms. Those who shared in the pilot excluded in the main study sample.

Administrative and ethical considerations:

Permission was obtained by submission of an official letter issued from the dean of the faculty of Nursing at Zagazig University. The researcher

visited the setting, explained the study aim and procedure, and asked for cooperation from the director. The study protocol was approved by the research and ethics committee at the faculty of nursing, Zagazig University. The aim of the study was explained to the students. Their verbal consents to participate in the study were obtained after informing them about their right to refuse or withdraw at any time. The confidentiality of any obtained information was insured and the data were used only for research purpose. The study procedures could not lead to any actual or potential harmful effects on participants.

Statistical analysis:

After data were collected it was revised, coded and fed to statistical software SPSS version 20. The statistical analysis used considered all tests to be T test with alpha error= 0.05. Microsoft Office Excel software was used to construct the needed graphs. P value equals to or less than 0.05 was considered to be significant.

Results:

Table 1 reveals that the nursing students aged between 18 to 23 years old with mean age 20.62 ± 1.29 years, 80% of them were females. Additionally, 82.3% of the nursing students were from rural area. Only 10.5% of them were married. Furthermore, 31.6 % of the nursing students rank first birth order. As well, 13% worked beside their study and 72.7% of the nursing students were live with their parents. As regards to the crowding index, 68.4% of the studied samples have one persons per room.

Table 2 illustrates that the highest sources of stress was environmental (21.8%) and the lowest stressors was academic stressors (5.9%).

Table 3 shows that the highest coping strategies were being humorous and seeking spiritual support (53.0%) while the lowest coping strategies was ventilating of feeling (5.7%)

Table 4 describes that there were a statistically significant relations

between coping strategies and nursing student's gender (0.030) and grade (0.019).

Discussion:

University students are moving into and through a major developmental period of transition. As they struggle with increased academic, personal, and social pressures in their lives by Kalra et al. ⁽²³⁾. Stress could result to deleterious symptoms, such as alcoholism and drug dependence, eating disorder, indiscriminate use of illegal substances, sleep disorder, suicide, absenteeism, mental health disorders, and even psychological symptoms by Labrague⁽²⁴⁾. Stress during education impairs student's cognitive ability and distorts perception. Coping strategies are the thoughts and actions used while dealing with a threatening situation Labrague⁽²⁴⁾.

Concerning the answering of the research question regarding the sources of stressors among nursing students at Zagazig University, the findings of the present study revealed that the highest source of stress was environmental followed by intrapersonal, and interpersonal. This might be due to most of the university student's face more stressors when they come to college from townships outside the city. As well, student's suffering from traffic congestion. Additionally being placed in an unfamiliar environment, and separation from the parents. This result was in agreement with a study that conducted to identify the factors contributing to stress among nursing students by Sharma & Kuar ⁽²⁵⁾. in Punjab found that the environmental factors had maximum contribution in causing stress (40%) followed by intrapersonal factors (30%). In the same line, another study was conducted by Seyedfatemi et al.⁽²⁶⁾ in Iran, who determine sources of stressors and coping strategies in nursing students studying and mentioned that the environmental source of stress was the most common of stressors.

Additionally, the current study revealed that the lowest source of stressors was academic. This might be due to the findings of the present study reported that three fifths of nursing students had no difficulties to reach courses professors and more than three quarters reported good relations with faculty demonstrators which indeed could decrease academic pressure. This results in contrast with a study which conducted by Amr et al.⁽²⁷⁾ in Mansoura, to examine the level of perceived stress among baccalaureate Mansoura nursing students and found that academic pressures were the most frequent stressors (82.6%) compared to environmental stressors (21.4%). Similarly, a study conducted by Atindanbila & Bayem ⁽²⁸⁾ in Ghana to examine the types and incidence of stressors among students in the university of Ghana-Legon, found that undergraduate nursing students in the university of Ghana more academic stressors than the other stressors. In addition, a descriptive study was conducted among nursing College Dibrugarh to find the level of stress and the factors associated with stress by Meghali ⁽²⁹⁾ in Dibrugarh found that the academic stressors had maximum contribution (40%), followed by intrapersonal factors (30%).

Concerning the answering of the research question regarding coping strategies findings of the present revealed that the highest coping strategies were being humorous and seeking spiritual support. While the lowest was ventilating of feelings. This might be due to the Egyptians nature of being humorous although the stressful life. Throughout the Arab World and especially in Egypt, there is a common phrase used by neighboring Arab populations to describe Egyptians, which literally translates to "son of the jokes". In addition, the importance of spirituality and religion in Egyptians' live cannot be ignored. In the same line, Shakthivel et al.⁽³⁰⁾ conducted a study in India to determine the prevalence of

stress and associated coping strategies among medical undergraduate found the mechanism among students were humor and religious methods 56%.

Similarly, findings of the present study were supported by Colom et al.⁽³¹⁾ in Spain mentioned that being humorous (laughter) has the capacity to reduce stress and improve the functioning of the immune system as students. Humorous can be an effective strategy in the process of coping problems and stress. Furthermore, the capacity of a sense of humorous contributes to prevent mental illness and perhaps even to fight them. On the contrary, a study done by Kumar ⁽³²⁾, in Punjab who mentioned that the used coping strategies from the most commonly used was seeking diversion (21.3±4.86) and the lowest was being humorous (5.6 ±2.02).

The findings of the present study revealed that there was a statistical significant relation between students' grade and total coping strategies. This might be due to the fact that they get into a higher level, they were able to adapt and adjust to the academic and clinical requirements of the program. Moreover, as they progress to the higher level of the program, they have already acquired and gained mastery in nursing skills necessary in their clinical experience and more or less develop more efficient and effective ways in dealing with different stressors. In agreement with study by Labrague ⁽³³⁾ in Philippine reported that

perceived stress levels decrease according to the year of attendance as year level correlates significantly with stress.

Conclusion:

Based upon the finding of the current study, it was concluded that less than two thirds of the nursing students reports their job as nurse is socially appreciates. Furthermore, the highest source of stressors among nursing students is the environmental and the lowest source of stressors is academic stressors. Additionally, the highest coping strategy used by the nursing students are being humorous and seeking spiritual support. While the lowest is ventilating of feelings. Moreover, the first grade students experienced greater stress than students in subsequent years and the third grade students experienced greater coping strategies.

Recommendations:

On the basis of the current study findings, the following recommendations are suggested:
It is recommended that:

- 1- Continues activation of the class leader hours to discuss the problems to alleviate the stressors among nursing students.
- 2- Students 'representatives responsible for contacting with administrative affairs employees to minimize numbers of waiting lines and reduce stressors.

Table (1): Distribution of nursing students according to demographic characteristics (n=440).

Student data	No	%
Age (years)	86	19.5
18-	237	53.9
20-	117	26.6
22-23		
Mean ± SD	20.62±1.29	
Gender	88	20.0
-Male	352	80.0
- Female		
Residence	362	82.3
Rural	78	17.7
Urban		
Marital status	46	10.5
Married	394	89.5
Un married		
birth order	139	31.6
First	97	22.0
Second	103	23.4
Third	101	23.0
Fourth/more		
Working	57	13.0
Yes	383	87.0
No		
Grade	86	19.5
First grade	128	29.1
Second grade	131	29.8
Third grade	95	21.6
Fourth grade-		
Save the work salary	25	43.9
Yes	32	56.1
No		
Living with	319	72.7
Parent-	72	16.3
Parent+ Grand fathers	3	.7
Only father	45	10.3
Only mother		
Crowding index		
< 2	301	68.4
2 -6	139	31.6

Table (2): Distribution sources of stressors among nursing students (n=440)

Sources of stressors	No stressors		Low		Moderate		High	
	No	%	No	%	No	%	No	%
Interpersonal	155	37.1	129	30.9	108	25.8	26	6.2
Intrapersonal	15	3.4	132	30.0	231	52.5	62	14.1
Administrative	46	10.5	160	36.4	172	39.1	62	14.1
Study(theoretical, practical)	3	0.8	36	9.1	327	83.0	28	7.1
Academic. Total	2	0.5	97	22.0	315	71.6	26	5.9
Environmental	25	5.7	84	19.1	235	53.4	96	21.8

Table (3): Distribution of coping strategies among nursing students in the study sample (n=440)

Coping strategies	Low		Moderate		High	
	No	%	No	%	No	%
Ventilating of feelings	53	12.0	362	82.3	25	5.7
Seeking diversions	25	5.7	376	85.5	39	8.9
Relaxing	12	2.7	305	69.3	123	28.0
Self-reliance and optimism	11	2.5	282	64.1	147	33.4
developing social support	9	2.0	248	56.4	183	41.6
Solving family problems	17	3.9	229	52.0	194	44.1
Avoiding problems	138	31.4	150	34.1	152	34.5
Seeking spiritual support	14	3.2	193	43.9	233	53.0
Investing in close friends	25	5.7	278	63.2	137	31.1
Seeking professional support	54	12.3	317	72.0	69	15.7
Engaging in demanding activities	53	12.0	269	61.1	118	26.8
Being humorous	3	.7	204	46.4	233	53.0
Coping total	1	.2%	385	87.5%	54	12.3%

Table (4): Relation between total coping strategies and nursing student's demographic characteristic

Demographic data	Coping total						MCP
	Low		Moderate		High		
	No	%	No	%	No	%	
Gender							0.030*
Male	0	0.0	70	79.5	18	20.5	
Female	1	0.3	315	89.5	36	10.2	
Residence							0.887
Rural	1	0.3	317	87.6	44	12.2	
Urban	0	0.0	68	87.2	10	12.8	
Grade							0.019*
First grade	0	0.0	68	79.1	18	20.9	
Second grade	0	0.0	109	85.2	19	14.8	
Third grade	0	0.0	122	93.1	9	6.9	
Fourth grade	1	1.1	86	90.5	8	8.4	
Married							0.082
Married	0	0.0	45	97.8	1	2.2	
Unmarried	1	0.3	340	86.3	53	13.5	
Working							0.402
Yes	0	0.0	47	82.5	10	17.5	
No	1	0.3	338	88.3	44	11.5	
Father education							0.779
Illiterate	0	0.0	26	100.0	0	0.0	
Read + write	0	0.0	36	85.7	6	14.3	
Basic	0	0.0	26	89.7	3	10.3	
Diploma	1	.5	160	85.1	27	14.4	
University	0	0.0	127	88.8	16	11.2	
Post graduate	0	0.0	10	83.3	2	16.7	
Mother education							0.958
Illiterate	0	0.0	83	90.2	9	9.8	
Read + write	0	0.0	34	89.5	4	10.5	
Basic	0	0.0	14	87.5	2	12.5	
Diploma	1	.5	181	85.4	30	14.2	
University	0	0.0	73	89.0	9	11.0	

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