

Predictors of Coping Strategies among Nursing College Students at AL-Zaytoonah University of Jordan

Dalal Bashir Moh'd Yehia, RN., PhD., Shirooq M Jacoub. RN. PhD., Seqilia Mohammad Eser.,
AL- Zaytoonah University of Jordan (ZUJ), Faculty of Nursing, PO box 130, Amman 11733, Jordan

The research is financed by AL-Zaytoonah university of Jordan (ZUJ).

Abstract

Background: Stress is a phenomenon faced by all individuals that show symptoms of vulnerability in physical, functional and social impairment as well as there is a unique ways to cope with these symptoms. Nursing students face many stressors during their academic period which influence their personality and academic performance. ¹

Objectives: The aims of this study were to measure the level of stress and to identify the predictors of coping strategies among nursing college students.²

Methodology: A descriptive cross- sectional correlational study was used to measure the aims of this study. Two hundred and seventy one nursing students from different educational levels were participated in this study. Perceived Stress Scale (PSS) was used to measure the level of stress and the Brief COPE Scale was used to determine the common coping ways used by the participants. Self- administrative questionnaires were used to collect the data. Collected data was analyzed using SPSS including descriptive and inferential analysis to investigate the aims of the study.

Results: Sixty nine percent of study participants were female, most (85.6%), of the participants were single and (79.3%) of them working as nurses. Two hundred and twenty nine (84.5%) of the participant had moderate level of stress (14-26). There was positive significant relationship between stress level and coping strategies. Venting, self-distraction and denial coping strategies were identified as predictors of coping among the nursing students.

Recommendations: The finding of this study draws attention to the importance of early identification of stressors among nursing college students followed by early interventions.

Keywords: Stress, Stressors, Perceived Stress, Coping strategies

1. introduction

Stress is a natural phenomenon that everyone experiences in lifetime and it is a normal physical response to events that make feel threatened or upset balance. Stress has become an integral part of our daily life, a little bit of stress may be unavoidable and good too to be complacent in life ¹. Stress is a state of emotional or mental strain resulting in a number of normal bodily reactions to retain self-preservation causes behavioral, psychological, and physiological changes in the body ².

Although, stress is usually not associated with pleasure, satisfaction or success; is not necessarily harmful and means being alive. Dr. Hans Selye (1956) defines the concept of health and stress as "the way in which our body responds to the demands of our life". Furthermore, individual throughout life experience negative effects on their functions ². Academic life considered as a transitional period which carry out stressful situation to the students. Nursing college students experience levels of stress during their educational period including academic examinations, long hours of study, assignments, lack of free time resulting from work overload, faculty response to their needs, lack of timely feedback and also life events stressors (Beck & Srivastava 1991).⁴

People coping with difficult or stressful circumstances have been the subject of a considerable amount of research over the past decade and it is well known that for most students ¹. Nursing College students experiencing stress that affect their achievement and negatively affect their life situations and their stated and planned goals and learning out comes, this fact force students attempt to adapt to these stressful situation.

Coping was defined early by Lazarus and Folkman (1984) as "constantly changing cognitive and behavioral efforts to manage specific external and/or internal demands that are appraised as taxing or exceeding the

resources of the person 3. Coping efforts may be directed outward toward changing the environment (problem-focused) or inward toward changing the meaning of the event (emotion-focused or palliative). Coping strategies refer to the specific efforts, both behavioral and psychological that people employ to master, tolerate, reduce or minimize stressful events 4.

To maintain stress level within the non-harmful level, nursing students utilizing different coping ways to keep stabilization in their physical, psychological and emotional wellbeing. Increased understanding of nursing students' stress levels and coping strategies help in minimizing the negative effects of perceived stress and improve their academic achievement 5.

2. Literature reviews

A study done by Elias, Ping & Abdullah (2011) in their study which carried out by the participation of 376 undergraduates nursing students aims to assess the stress level and academic achievement among the participants. The study results showed that the participant students experienced moderate level of stress and the academic source was the most common cause of this stress level. Also, the study results showed a weak negative correlation between stress level and students' academic achievement. Rajeh (2011) conducted a study with a participation of nursing students from private institution to measure the level of stress and the coping strategies used by those students. Perceived Stress Scale was used to measure the stress level and brief COPE was used to identify the used coping strategies by the participants. The analyzed data showed that 34.4% of the participants had moderate level of stress while the other participants had 32.8% of low and high level of stress. The most common coping strategies adopting by the students were; seeking diversion, and professional support. Using smoking and prescribed drugs by doctor and drinking alcohol were the least adopting coping methods.

Al-Dubai, Al-Naggar, Alshagga & Rampal (2011) conduct a study to measure stress level and the coping strategies used by undergraduate medical and medical science students. The analyzed data showed that 64% of the students feel stress. Smoking, financial and worries about future were the significant predictors of stress among the participants. The participants used active coping, religion coping, reframing, planning and acceptance coping strategies. A study carried out by Gomathi, Ahmad & Sreedharan (2013) using Brief COPE to measure the coping strategies adopted by the undergraduate health professions students in United Arab Emirates. The results showed that the most common stress among those participants was; worrying about their future and parental expectation. The participants' adopted coping strategies were; religion (74.5%), planning (70.5%) and taking action (70%). A Three hundred and seventy three baccalaureate nursing students were participated in a study to measure the stress level using Perceived Stress Scale. The analyzed data showed that 40.2% of the students had high level of stress, 46.6% had anxiety and 27.9% had depression. The researcher reported that the students need to have stress orientation at the beginning of students' academic life (Amr et al. 2011).

Finally, a study carried out by Khater, Akhu-Zaheya & Shabana (2014) aimed to assess the stress level and the sources of stress among nursing students from two Jordanian Universities. A total of 597 nursing students were participated in this study. The researcher used Perceived stress scale to measure the level of stress and coping behaviors inventory used to identify the coping behaviors used by the nursing students. The analyzed data showed that 47.8% of the participants had stress level above the mean ($M=1.56$) and the most common sources of stress were; assignments work, stress by peers and daily life, and stress from nursing staff and teacher. Furthermore, the most used coping were; problem solving, staying optimistic and transfer, while avoiding teachers, avoid quarrel with others and lose temper were the least used coping strategies.

3. Methodology

A cross-sectional correlational design was used to assess the level of stress and the adopting coping strategies among college nursing students at Al-Zaytoonah University of Jordan. A convenience of two hundred and seventy one nursing students from the fourth years was participated in the study after getting their agreements. A three self-reported questionnaires were used to collect the data; the first section consists from the demographic information, the second section includes the Perceived Stress Scale developed by Dr. Cohen (1984) used to measure the level of stress among the participants. In this study scores were divided into three scores; Low level (0-13), Moderate level (14-26) and high level (27-40). The third part used brief COPE scale developed by Carver, (1997). This scale is comprised of 14 scales, which assesses the degree to which a respondent utilizes a specific coping strategy. These scales include: (1) Active Coping, (2) Planning, (3), Positive Reframing, (4), Acceptance, (5) Humor, (6) Religion, (7) Using Emotional Support, (8) Using Instrumental Support, (9) Self-Distraction, (10)

Denial, (11) Venting, (12) Substance Use, (13) Behavioral Disengagement, and (14) Self-Blame. The collected data was analyzed using SPSS version 24. Descriptive analysis frequency and percentage were used and inferential analysis including Pearson correlation (r) and step wise regression was used to identify the predictors of coping among the participants.

4. Results

The findings of this study are categorized as demographic data, level of stress, common used coping strategies and the predictors of coping strategies among the nursing students.

4.1 Demographic Data

More than half (69.9%) of the participants were female, most of them were single (85.6%), around half (55.4%) of them bridging to bachelor degree, and most of them (79.3%) working as nurses. Finally, most of the participants (76.6%) living with their families. Table (1) summarized the demographic data.

Table. 1 Demographic data the of nursing college students

Variable/frequency	%
Age	(range 22-25) year
Gender	
Male (87)	30.1
Female (184)	69.9
Marital status	
Single (232)	85.6
Married (39)	14.4
Educational Level	
1 st year (65)	23.9
2 nd year (30)	11.1
3 rd year (81)	29.9
4 th year (95)	35.1
Type of study	
Bridging (150)	55.4
Regular (121)	44.6
Type of Job	
Nurses (215)	79.3
Other (56)	20.7
GBA	
84-100 (35 Excellent)	12.9
<84-76 (91 very good)	33.6
<76-68 (100 good)	36.9
<68>50 (45 Accepted)	16.6
Living with	
Family (205)	76.6
Others (66)	23.4

4.2 Level of Stress

The analyzed data showed that only nine (3.3%) participants have low level of stress (0-13) on the stress scale, 229 (84.5%) of the participant had moderate level of stress (14-26), while 33 participant (12.2%) had high level of stress (27-40). Table two show the level of stress among the participants

Table 2. Level of stress among the nursing college students

Level of stress	Frequency (100%)
Low level (0-13)	9 (3.3%)
Moderate level (14-26)	229 (84.5%)
High level (27-40)	33 (12.2%)

4.3 Coping strategies

Table 3 showed the mean and SD of the most and the least common coping strategies used by the nursing students. It was evidence that the more ways of coping were used is (religion, active coping & planning, respectively) while the lowest one were; (substance use, behavioral disengagement and humor respectively).

Table 3. Mean and SD of the coping strategies used by the college nursing students

Coping strategy	M	SD
I have been prying or mediating (religion)	3.41	.90
I've been trying to find comfort in my religion or spiritual beliefs(religion)	3.29	.95
I've been taking action to try to make the situation better (Active Coping)	3.09	.96
I've been thinking hard about what steps to take(Planning)	3.05	.89
I've been using alcohol or other drugs to make myself feel better (Substance Use)	1.17	.60
I've been using alcohol or other drugs to help me get through it(Substance Use)	1.23	.71
I've been giving up the attempt to cope (Behavioral Disengagement)	1.89	.92
I've been making fun of the situation(Humor)	1.99	.96

Furthermore, descriptive analysis was used to identify the most common used coping strategies in the identified three level of stress used by the studied sample.

The results showed that more than the half (67%) of the participants with low level of stress used instrumental support coping strategies and (44%) of the participant in this level used self-distraction, self-blaming and religion coping strategies, while (39%) of the participants used behavioral disengagement. Regarding the moderate level of stress, the results showed that (55%) of them used instrumental coping strategy. (44%) of them used self-distraction, (39 %) used self-blaming, religion and behavioral disengagement coping strategies used by (38%) of the participants. The participants with high level of stress, it was evidence that, more than the half (67%) instrumental support,(41%) used self-distraction,(36%) used self-blaming coping strategy,(35%) used religion coping strategy, while(33%) used behavioral disengagement coping strategy.

Pearson correlation (r) was used to identify the relationship between the perceived stress level and the coping strategies. The results showed that there was positive significant correlation between the perceived stress levels by the students and the venting, self-distraction and denial used coping strategies (r = .252, r = .132, r = .242 respectively).

4.4 Predictors of coping strategies among nursing college students

Regression analysis was used to assess the predictors of coping strategies used by the nursing students' perceived stress level. A standard multiple regression (R²) analysis was used to establish the relative contribution of the hypothesized predictors. The results in table (4) showed that the venting, self-distraction and denial coping strategies explained 8.6% of the variance in stress level among the nursing students. In this model venting coping strategy ($\beta = .51, p < .01$), self-distraction coping strategy ($\beta = .14, p < .05$), and denial coping strategy ($\beta = .40, p < .01$) were significant predictors of coping strategies among the nursing college students. This indicate that,

when the nursing college students which were participate in this study experience stress level they utilize venting, denial and self-distraction coping strategies.

Table 4: Regression model for coping mechanisms Predictors.

Predictors	Standardized coefficients Beta	B	P	95.0 % CI interval for	
				Lower bond	Upper Bond
Venting	0.178	0.519	0.0001	0.054	0.748
Self-distraction	0.055	0.148	0.0001	-0.206	0.502
Denial	0.151	0.401	0.0001	0.117	0.920
Total R 2 0.86					
Dependent variable – coping strategies					

5. Discussion:

This study is an attempt to identify the stress experienced by nursing college students and how they cope with stress situations. Moderate level of stress among the studied sample (84.5%) concurs with the study of Elias, Ping& Abdullah (2011) & Rajeh (2011). Half of these students were enrolled in bridging program were engaged much more in clinical practice in health facilities, thus it might be a possibility that they experienced transient stress more than in their first and second year study. Although (14.4%) of the studied sample were married they may experience more stress level from the family and social needs as required by their socio-cultural perspective and half of the participants were enrolled in the bridging level and usually they are married adult.

The results of this study showed that the majority of the participants students were senior levels 65% (3rd &4th year), this result is congruent with Ruth ,L. (2002) who founds 44.2% experienced stress which indicates that nursing students have identified the clinical component of nursing as the most stressful one.

The common used coping strategies by the participants' of this study were; venting, self-distraction and denial. Religion, active coping and planning and the least using coping strategies were substance and alcohol use, behavioral disengagement and humor. Kirkland (1998) study showed that the coping strategies used by the study sample were active coping, and seeking social support for instrumental and emotional reasons. While, behavioral disengagement, denial, and alcohol-drug use reported to be unsuccessful coping strategies in the majority of instances. Another support to our study results is the study conducted by Rajesh (2011), regarding the used coping strategies which reported that the most common used coping strategies among the study sample were; venting, seeking diversion and seeking professional support. Results of this study revealed that the students used to ask help from others (instrumental support), using praying and spiritual believes (religion), doing something to divert the stress (self- distraction). Also, the results of this study showed the least using coping strategies (smoking, using drugs and drinking alcohol) which supported by the results of our study (Using of drugs and alcohol).

Coping with stress for a student nurse is a dynamic and ongoing process, aimed at survival, growth and maintenance of the individual integrity. Students try to restore the imbalance and disequilibrium within them by attempted adjustment through the use of various coping strategies which can be healthy or unhealthy. In regard to the study done by Wolf L, Stidham AW, Ross R. (2015) they found that positive thinking and social support were the most coping methods used by the students. Rajesh K, Nancy (2011) "Seeking diversion" is the most common and "Seeking professional support" is the least common coping strategy identified in nursing students.

On other hand, coping strategies have been shown to vary by region, community, social group, household, gender, age, and are greatly influenced by individuals' previous experiences. Redhwan et.al (2009) revealed in their study that friends and peers was the most common method of coping with stress, this might be because students spend more time in their university.

Linatda, K& Abdul Rashid , M (2014) found that (86.00%) undergraduate student agreed that social support strategies helped them to cope with academic performance problem , by receiving guidance from professors in their class , needing someone to express their emotions or talking to another student for emotional support],

talking to someone who can be trusted. (84.50%) of them agreed that they used avoidance coping strategies to cope with academic performance problem, undergraduate students tend to practice approach coping strategies and avoidance coping strategy less frequently when they faced difficulties in order to perform well in their academics.

Conclusion

Results of the study indicated that stress is very common in nursing education and it may have an impact on the physio-psycho-social health of the students.

This study provides data that may be helpful in taking actions to decrease the stress level and managing the stressful situation by using accepted coping behaviors. This will help in reducing the negative psychological symptoms associated or resulting from stress and improve their academic performance and prepare them for their future profession.

Recommendations

This study point- out, the importance of carrying out early assessment of students to identify their vulnerability in developing stress resulting from their academic environment would serve as an important input in identifying and planning effective interventions and strategies to reduce or prevent stress in nursing education and training thus, facilitating their learning both in the academe and clinical setting. Further researches are needed to involve larger sample from other colleges of nursing. College of nursing needs to establish a counselling program for the students at risk to cope negatively with stressful situations.

References

- 1- Hamill, C. (1995). The phenomenon of stress perceived by project 2000 student nurses; a case study. *Journal of Advance Nursing*, 21,528-536.
- 2- Seyle H. (1974) *Stress without Distress*. J.B. Lippincott, Philadelphia, PA.
- 3- Lazarus R.S. & Folkman S. (1984) *Stress, Appraisal, and Coping*. Springer, New York.
- 4- Martos,P.M, Landa,A.J. & Zafra, L. (2012). Sources of stress in nursing students; a systematic review of quantitative studies. *International Nursing Review*, 59, 15-25.
- 5- Lim, G, Pogossian,F. & Ahem, k. (2010). Stress and coping in Australian nurses. A systematic review. *International Nursing Review*. 57, 22-31.
- 6- Elias,H., Ping,W.S.& Abdullah, M.O. (2011). Stress and academic achievement among undergraduates' students in university Putra Malaysia. *Procedia-social and behavioral science*. 29, 464-655.
- 7- Al-Dubai, S.A., Al-Naggor, A., Alshaggam M.A. & Rampal, K,G. (2011). Stress and coping strategies of students in a medical faculty in Malaysia. *The Malaysian Journal of Medical science*. 18(3),57-64.
- 8- Gomathi, K.G.& Ahmad, S.& Sreedharan, J. (2013). Causes of stress and coping strategies adopted by undergraduates health professions students in United Arab Emirate. *Sultan Qaboos University Medical Journal*.13 (3), 437-441.
- 9- Amr, M., El-Gilany,A., El-moafee, H., Salama, L. & Jimenez, C. (2011). Stress among Mansoura (Egypt) baccalaureate nursing students. *Pan African Medical Journal*.
- 10- Khater, W.A., Akhu-Zaheya, L.M.& Shaban, I.A. (2014). Sources of stress and coping behaviors in clinical practice among baccalaureate nursing students. *International journal of humanities & social science*. 4(6), 194-202.
- 11- Ruth, L. (2002). A longitudinal study of perceived level of stress, coping and self-esteem of undergraduate nursing students: an Australian case study. *Journal of Advanced Nursing*. 39(2), 119–126
- 12- Kirkland M.L. (1998) Stressors and coping strategies among successful female African American baccalaureate nursing students. *Journal of Nursing Education*. 37, 5–14.
- 13- Rajesh Kuman, Nancy. (2011). Stress and coping strategies among nursing students and midwifery. *Nursing and Midwifery research journal*. 7(4), 142-151.
- 14- Wolf L, Stidham AW, Ross R. (2015). Predictors of stress and coping strategies of US accelerated vs. generic Baccalaureate Nursing students. *Nurse Edu Today*. Jan; 35 (1):201-5.
- 15- Redhwan A , Sami A , Karim A , Chan R and Zaleha, M.(2009). Stress and Coping Strategies among Management and Science University Students: A Qualitative Study. *The International Medical Journal*. 8(2), 11-15.
- 16- Linatda ,K& Abdul Rashid , M.(2014). Coping Strategies on Academic Performance among Undergraduate Students in Thailand. *The SIJ Transactions on Industrial, Financial & Business Management (IFBM)*, Vol. 2 (3), 58-61.