



Stress and Coping Strategies Among Nursing Students

Author 1: Zeenat Farooq. Tutor Govt. College of Nursing, Bagh I Dilawar Khan Srinagar

Author 2: Iqbal Majid Dar. Tutor Govt. College of Nursing, Bagh I Dilawar Khan Srinagar

ABSTRACT : Nursing students suffer from high levels of stress related to academic assignments in addition to clinical skills training. As a psychosocial phenomenon, stress affects students' academic achievement and wellbeing. Coping mechanisms help students deal with the challenges arising from stress. This study was conducted with the aim to assess the level of stress and common stressors among nursing students; to describe the difference in stress level related to demographic data; and to identify coping mechanisms used by nursing students.

Methodology: A descriptive cross-sectional study was carried out to determine the type of stress and coping strategies among nursing students. The level of stress was evaluated through Perceived Stress Scale (PSS) and type of coping strategies were assessed by use of Coping Behaviours Inventory (CBI).

Results: Students perceived moderate level of stress, most commonly attributed to assignments and workload, teachers and nursing staff, peers and daily life, and taking care of patients. The most frequently used coping mechanism was problem solving. The study found that age, education level and residence are good predictors of the use of transference as a coping behaviour.

Conclusion: A moderate level of stress among students illustrates the need for stress management programs and the provision of suitable support.

Keywords: Stress, Coping, Student, Nursing

1. INTRODUCTION:

Students at the college level experience high level of stress, related to worry about successes, availability of time, engagement in patient care (Mohamed & Ahmed, 2012). There are many sources of stress among nursing college students, which can be related to academic workload, many assignments, and exposure to a new setting. The rate and level of stress and depression is an alarm among students in different academic fields (El Ansari, Adetunji, & Oskrochi, 2014). Nursing students practice a long hour of study and inadequate time for other

activities (Gibbons, Dempster, & Moutray, 2011). In addition, they spend a substantial time in the clinical areas, with the heavy responsibility of being accountable for patients (Reeve, Shumaker, Yearwood, Crowell, & Riley, 2013). Moreover, financial burden, struggling to manage time and using high-tech machines are all additional stressors in many cases (Seyedfatemi, Tafreshi, & Hagani, 2007). Clinical practice in nursing is essential to train students to be professional nurses through applying academic skills in practice, helping bridge the theory-practice gap that commonly faces newly qualified nurses (Labrague, 2014). The stress can be related to the short time to study and spend many hours in clinical setting such as hospitals and health centres (Shriver & Scott-Stiles, 2000). Some student can't cope with their stressors because they don't have the suitable study plan. In general, student cannot eradicate the stress but they can reduce it. Many studies found that nursing student have high level of stress comparing with other students (Gibbons et al., 2011; Goff, 2011; Reeve et al., 2013). Coping strategies to manage stress through social care can positively reduce levels of stress and promote health (Lo, 2002; Payne, 2001). The students join the nursing school in between the ages of 18-20 years (upon completion of high school), and are then led to face with some patient care responsibilities for which they lack the prerequisite professional knowledge and skills, which is the root of the stress they face (Sheila Sheu, Lin, & Hwang, 2002). Despite the universal acknowledgement of the intense stress faced by students, very little is known in terms of epidemiological figures around stress level and factors. Largely due to cultural attitudes that affirm the inevitability and normality of major stress among students, including among nursing researchers who themselves have gone through such stressful processes, very few studies have explored the prevalence of stress among students. This study constitutes an effort to illustrate levels of stress and to identify common stressors among nursing students, describe the differences in stress levels and coping behaviour related to demographic variables (age, gender, residence, sleeping hours) , find out the relation between type of stress and coping strategies and to find out the coping mechanism used by nursing students.

2. METHODOLOGY

2.1 Setting : A cross-sectional study was conducted at Government College of Nursing Bagh I Dilawar Khan Srinagar for 10 days (March 2020). The college delivers a bachelor degree in nursing.

2.2 Sampling and Sampling Criteria: The population sample comprised of all students in nursing college during the study period. Convenient sampling was used to collect data from students who were studying nursing during the study period.

2.3 Survey Instruments: First, The Perceived Stress Scale (PSS) Questionnaire was used to collect data for the purpose of the study (S Sheu et al., 1997). The questionnaire required students to record their impression about stress level. It included students from first to third year. This tool was established by S Sheu et al. (1997). It was used to explore types and level of stress that occurred in clinical settings. A 5-point Likert type scale was used which consisted of 29 items, and clustered into six factors. These six factors were categorised as stress from; taking care of patients, teachers and nursing personnel, tasks and workload, peers and daily life, stress from poor level of specialized knowledge and skills, and from the clinical setting. Scores ranged from 0 to 116. A higher score indicated a higher degree of stress. The following scaling was used to determine the

level of stress; high stress (2.67-4.0), moderate stress (1.34-2.66) and low stress (0-1.33) (Labrague, 2014). Second, Coping behaviour inventory (CBI) established by (Sheila Sheu et al., 2002) was used to find out nursing students' coping strategies. It consists of 19 items classified into four types; avoidance behaviours, problem solving behaviour, optimistic coping behaviour and transference behaviour. Each item was rated into on a 5 Likert scale, high scores indicate more used of coping behaviour.

2.4 Data Collection: Data was collected during the teaching hours in the college. All the students were invited to participate in the study.

2.5 Data Analysis: The analysis of data was carried out using SPSS version 20. Descriptive statistics and frequency distributions were performed to describe the baseline characteristics of study samples and to determine the level of stress. A p-value of less than 0.05 was considered statistically significant.

3. RESULTS:

3.1 Participants' Characteristics: A total of 150 students were involved to participate in the study, most of them were females (60%), living with their families (80.4%). The mean age of the participants was 23.9 years (SD=5.07), and their sleeping hours' mean was 7 hours (SD=1.81).

Table 1. Participants' Demographics (n = 150)

Demographic Variable		%age
Gender	Male	40%
	Females	60%
Residence	With family	80.4%
	Alone/Hostlier	19.6 %
		Median
Age	23.9	23
Sleeping hours	7.0	7

3.2 Level of Stressors Perceived by Students: The level of stress and types of stressors perceived by nursing students are tabulated in Table 2. The degree of stress perceived by the participants was 1.57 (SD=0.72). The most common type of stressor perceived by students was stress from assignment and workload (M=1.82, SD=0.90), students felt stressed when they worried about bad grades, experience pressure of clinical practice, and not met teachers' expectations. The second highest causes of stress were caused by teacher and nursing staff (M=1.80, SD=0.83) such as experience discrepancy between theory and practice, do not know how to discuss patients' illness with teachers, etc. The third most common stressors encountered by students were stress from taking care of patients (M=1.47, SD=0.86) followed by lack of experience and ability in providing nursing care, do not know how to help patients with physio-psycho-social problems etc. The least sources of stress were caused by the environment (M=1.28, SD=0.90) such as; feel stressed in the hospital environment where clinical

practice takes place, unfamiliar with the ward facilities, and feel stressed from the rapid change in patient's condition.

Table 2. Stressors Perceived by Nursing Students (n = 150)

STRESS Factor/Items Factor	Ranking	Mean	SD
Overall PSS	3	1.57	0.72
1. Stress from taking care of patients		1.47	0.86
Lack of experience and ability in providing nursing care and in making judgments		1.51	1.06
Do not know how to help patients with physio-psycho-social problems		1.47	1.07
Unable to reach one's expectations		1.29	1.10
Unable to provide appropriate responses to doctors', teachers',		1.76	1.10
and patients' questions			
Worry about not being trusted or accepted by patients or patients' family		1.51	1.28
Unable to provide patients with good nursing care		1.48	1.31
Do not know how to communicate with patients		1.27	1.18
Experience difficulties in changing from the role of a student to that of a nurse		1.49	1.15
2. Stress from teachers and nursing staff	2	1.80	0.83
Experience discrepancy between theory and practice		1.77	1.10
Do not know how to discuss patients' illness with teachers, and medical and nursing personnel		1.53	1.13
Feel stressed that teacher's instruction is different from one's expectations		1.85	1.06
Medical personnel lack empathy and are not willing to help		1.74	1.28
Feel that teachers do not give fair evaluation on students		2.21	1.40
Lack of care and guidance from teachers		1.73	1.25
3. Stress from assignments and workload	1	1.82	0.90
Worry about bad grades		2.73	1.25
Experience pressure from the nature and quality of clinical practice		1.70	1.16
Feel that one's performance does not meet teachers' expectations		1.90	1.22

Feel that the requirements of clinical practice exceed one's physical and emotional endurance		1.20	1.21
Feel that dull and inflexible clinical practice affects one's family and social life		1.55	1.34
4. Stress from peers and daily life	4	1.42	0.88
Experience competition from peers in school and clinical practice		1.20	1.20
Feel pressure from teachers who evaluate students' performance by comparison		2.05	1.38
Feel that clinical practice affects one's involvement in extracurricular activities		1.46	1.21
Cannot get along with other peers in the group		0.93	1.05
5. Stress from lack of professional knowledge and skills	5	1.30	1.03
Unfamiliar with medical history and terms		1.26	1.08
Unfamiliar with professional nursing skills		1.19	1.19
Unfamiliar with patients' diagnoses and treatments		1.45	1.17
6. Stress from the environment	6	1.28	0.90
Feel stressed in the hospital environment where clinical practice takes place		1.28	1.15
Unfamiliar with the ward facilities		1.11	1.12
Feel stressed from the rapid change in patient's condition		1.43	1.13

3.3 Coping Strategies Frequently Used for Relieving Stress: Coping strategies commonly used by nursing students are presented in Table 3, the most frequent coping strategy was problem solving ($M=2.53$, $SD=0.87$) for example, setting up objectives, adopting strategies to solve problems, making plans and listing priorities, finding the meaning of stressful incidents, and employing experience. The second coping strategies used by students was staying optimistic ($M=2.28$, $SD=0.73$), and the least coping strategies used by students was avoidance ($M=1.17$, $SD=0.61$).

Table 3. Copying mechanism by Nursing Students (n = 150)

	Factor ranking	Mean	SD
1. Avoidance	4	1.17	0.61
1. To avoid difficulties during clinical practice		1.92	1.12
2. To avoid teachers		1.42	1.20
3. To quarrel with others and lose temper		0.48	0.78
4. To expect miracles so one does not have to face difficulties		0.98	1.11
5. To expect others to solve the problem		1.19	0.91
6. To attribute to fate		1.06	1.09
2. Problem solving	1	2.53	0.87
7. To adopt different strategies to solve problems		2.51	1.15
8. To set up objectives to solve problems		2.51	1.16
9. To make plans, list priorities, and solve stressful events		2.43	1.17
10. To find the meaning of stressful incidents		2.29	1.12
11. To employ past experience to solve problems		2.86	1.09
12. To have confidence in performing as well as senior schoolmates		2.55	1.15
3. Stay optimistic	2	2.28	0.73
13. To keep an optimistic and positive attitude in dealing with everything in life		2.96	1.17
14. To see things objectively		2.53	1.08
15. To have confidence in overcoming difficulties		2.78	1.13
16. To cry, to feel moody, sad, and helpless		0.84	1.11
4. Transference	3	1.90	0.81
17. To feast and take a long sleep		1.23	1.18
18. To save time for sleep and maintain good health to face stress		2.18	1.18
19. To relax via TV, movies, a shower, or physical exercises (ballplaying, jogging)		2.29	1.23

3.4 Correlation Between Stress Level and Coping Behaviour

A Pearson correlation was carried out to determine the relationship between PSS subscales and CBI subscales. There was a positive moderate correlation between “Avoidance” and all the PSS subscales, with “Stress from

taking care of patients" ($r= 0.33, p= 0.001$), "Stress from teachers and nursing staff" ($r= 0.26, p= 0.001$), "Stress from assignments and workload" ($r= 0.40, p= 0.001$), "Stress from peers and daily life" ($r= 0.29, p= 0.001$), "Stress from lack of professional knowledge and skills" ($r= 0.30, p= 0.001$), and "Stress from the environment" ($r= 0.35, p= 0.001$) (Table 4). In addition, "Problem solving" was correlated with "Stress from taking care of patients" ($r= -0.16, p= 0.04$), and with "Stress from peers and daily life" ($r= -0.17, p= 0.03$).

3.5 Differences Between Stress Level, Coping Behaviour and Demographic Variables: This study found that gender was statistically significantly with stress level $t(182) = -2.37, p=0.019$ and $t(180) = -1.89, p=0.027$, respectively. On the other hand, gender was statistically significantly with coping behaviour using "Problem solving" level $t(169) = 2.44, p=0.016$ and type of residence was statistically significantly with coping behaviour using "Transference" level $t(180) = -3.11, p=0.002$.

3.6 Correlation Between Stress Level and Demographic Variable: Spearman correlation found a weak positive correlation between coping behaviour of "Transference" and sleeping hours ($r= 0.18, p= 0.017$).

3.7 Regression Analysis for Stress Level, Coping Behaviour and Demographic Variables: No significant result was detected between stress level and Demographic variables. Furthermore, multiple linear regression was carried out to predict the CBI subscales and other variables (demographic variables) and the only significant difference was detected with Transference.

4. Discussion: This study explains the level of stress and coping behavior among nursing students. The stress level among students was moderate. Moreover, the moderate level of stress was caused by; assignments and workload, teachers and nursing staff, peer and daily life, and finally stress from taking care of patients. A low level of stress was caused by lack of professional knowledge and skill and stress from the environment. The students used problem solving to cope with stress as the highest used mechanism and the lowest used mechanism was avoidance. There was a positive correlation between Avoidance as a coping behavior and all the PSS subscales, so as the level of stress becomes higher the students will use more coping behavior. In the contrast, there was a negative weak correlation between problem solving as a coping behavior and stress from taking care of patients and lack of professional; knowledge and skills. Furthermore, the study found that as the sleeping hour increased the students will use transference as a coping behavior. Age and residence were a good predictor for transference as a coping behavior.

4.1 Type of Stressors: The stress level among students was moderate. Hong Kong nursing students have a moderate level of stress (Bayram & Bilgel, 2008; Chan et al., 2009; Labrague, 2014; Mohamed & Ahmed, 2012; Shaban, Khater, & Akhu-Zaheya, 2012; Sheila Sheu et al., 2002) and according to Mohamed and Ahmed (2012) the majority of students complain of high level of stress. Moreover, Ross et al. (2005) stated that the level of stress was high. In this study, students reported that the most common sources of stress were assignments and workload, teachers and nursing staff, and finally stress from taking care of patients were the most common sources of stress, this is in line with Jimenez, Navia-Osorio, and Diaz (2010), who found that stress from assignment and workload was one of the major stresses experienced by more than 300 nursing students in their study in Spain. This study found

that stress from teachers and nursing staff were significant and one of the most common sources of stress they perceived, in like manner with many studies; Chen and Hung (2014); Evans and Kelly (2004); Nolan and Ryan (2008). May be the reason behind that was the time of communication between teachers, nursing staff and students was not enough (Timmins & Kaliszer, 2002). Moreover, some clinical environments were not welcoming the new students (Kaur et al., 2009). According to this study, taking care of patients was one of the main common stress sources, many researchers stated that taking care of patients was the prominent stress perceived by students (Chang et al., 2007).

4.2 Coping Mechanisms: This study found that problem solving strategies were the most commonly deployed mechanisms of coping with stress, while avoidance was the least, similar to previous studies (Al-Zayyat & Al-Gamal, 2014; Chan et al., 2009; Chen & Hung, 2014). Conversely, Shaban et al. (2012) found that avoidance was the most commonly used mechanism among students in dealing with different stresses. Avoidance is generally recognized as only a temporary measure and not a sustainable solution to address underlying stressors.

4.3 Stress and Coping Skills Correlations: While this study found that there is a positive correlation between avoidance and overall perceived stress sources, some studies agreed with the results of this study while other studies mentioned that this positive correlation were found between avoidance and one or two of the PSS subscales (Chan et al., 2009; Shaban et al., 2012). The present study showed that there is a negative correlation between using problem solving technique as a coping skill and the stress of taking care of patients. In parallel with Chan et al. (2009), who found that each unit increased in stress from taking care of patient will decrease one fifth point of using problem solving. In addition, they found that there is a significant positive relationship between sleep and using transference as a coping skill (Chan et al., 2009).

4.4 Limitation

The main limitation of this study was its cross-sectional design, which does not explore causal relationships between variables. Furthermore, the implications of the findings are limited due to including only a single institution, and the general recruitment of students prevented exploring the particular needs of certain years during the nursing program, which narrows the scope of the emergent picture of stress among nursing students and its magnitude. In addition, there could be respondent bias in filling the questionnaires.

5. CONCLUSION

Nursing students experience a moderate level of stress because of assignment and workload, teacher and nursing staff, peers and daily life, and taking care of patients. The most commonly used coping mechanism to relieve stress is problem solving. Nursing faculties can help meet student needs by acknowledging their complaints of heavy workloads and extra assignments, offering supportive services. Faculties should pay attention to the stress level of students, and focus on offering a stress management program for that (Ross, 2005, Thailand).

Managers should focus on the stress level during orientation programs.

6. RECOMMENDATION

A stress management program should be applied as an immediate measure to address stress, and its effectiveness should be checked longitudinally, with consideration of families and peers as well as nursing students themselves. Further research should explore the particular factors exacerbating the experience of stress among students relative to curriculum design. Nursing educators and curriculum designers should consider the optimization of curriculums to offer a less stressful experience for students (e.g. ensuring low-intensity academic requirements when students undertake clinical placements).

REFERENCES

- Chang, E. M. L., Bidewell, J. W., Huntington, A. D., Daly, J., Johnson, A., Wilson, H., . . .
- Lambert, C. E. (2007). A survey of role stress, coping and health in Australian and New Zealand hospital nurses. *International Journal of Nursing Studies*, 44(8), 1354-1362. <https://doi.org/10.1016/j.ijnurstu.2006.06.003>
- El Ansari, W., Adetunji, H., & Oskrochi, R. (2014). Food and mental health: relationship between food and perceived stress and depressive symptoms among university students in the United Kingdom. *Cent Eur J Public Health*, 22(2), 90-97. <https://doi.org/10.21101/cejph.a3941>
- Gibbons, C., Dempster, M., & Moutray, M. (2011). Stress, coping and satisfaction in nursing students. *Journal of Advanced Nursing*, 67(3), 621-632. <https://doi.org/10.1111/j.1365-2648.2010.05495.x>
- Goff, A. M. (2011). Stressors, academic performance, and learned resourcefulness in baccalaureate nursing students. *Int J Nurs Educ Scholarsh*, 8, Article 1. <https://doi.org/10.2202/1548-923X.2114>
- Home, A. M. (1997). Learning the Hard Way. *Journal of Social Work Education*, 33(2), 335-346. <https://doi.org/10.1080/10437797.1997.10778874>
- Jimenez, C., Navia-Osorio, P. M., & Diaz, C. V. (2010). Stress and health in novice and experienced nursing students. *Journal of Advanced Nursing*, 66(2), 442-455. <https://doi.org/10.1111/j.1365-2648.2009.05183.x>
- Kaur, S., Das, K., Amrinder, N., Kanika, S., Meena, P., Gagandeep, I., & Arash, R. (2009). Stress and coping in the nursing students. *J Ment Health Hum Behav*, 14(1), 51-56.
- Labrague, L. J. (2014). Stress, stressors, and stress responses of student nurses in a government nursing school.

