

Stress among PCL Nursing Students of TUIOM Nursing Campuses in the Kathmandu Valley

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Abstract

Background: Stress is common among students and even more common among nursing students. They have similar stresses to other students such as examination pressure, assignment load, lack of free time, family and other personal commitments as well as challenges of clinical practice. Continuous high level of stress may influence the learning process and patient care. So this study was conducted to identify the stress among Proficiency Certificate Level (PCL) nursing students.

Methods: Descriptive cross sectional study was conducted among 287 PCL nursing students currently studying in different level in nursing campuses of the Institute of Medicine during June and July 2013. Self-administered semi structured questionnaire and rating scale was used for the data collection.

Results: The most common stress was personal-environmental stress (mean 3.17 ± 0.67) followed by clinical stress (2.99 ± 0.51) and academic stress (2.97 ± 0.61). Academic and personal stresses were more common among third year (3.03 ± 0.63 and 3.24 ± 0.73 respectively) while Clinical stress was common among second year students (mean 3.11 ± 0.51). Stress was least among first year students.

Conclusion: The finding shows prevalence of stress among PCL nursing students. Stress is more common among second and third year than in first year students. Issues like assignment load in clinical, gap between theory and practice, test and examination, length of class, parental expectation, and change in eating-sleeping pattern, lack of play and recreational activities are felt as common stressors. These factors should be considered by faculties, administration as well as parents to minimize PCL nursing students' stress.

Key Words: Nursing students; stress: Academic; Clinical; personal-environmental stress.

Introduction

Stress is a factor that happens to affect everyone's life. Nursing students undergo tremendous stress during various stages of their course^{1,2}. Studies comparing the stress levels of various professional students found that nursing students experience higher levels of stress than medical, social work and pharmacy students². Another study showed that "one third" of nursing students experience stress severe enough to induce mental health problems such as anxiety and depression³. Rella, Winwood, and Lushington (2008) found that up to 20% of nursing graduates were reporting serious unmanaged fatigue and stress during their student life⁴.

Moderate amounts of stress help to motivate students and, at times, increase their performance, while too high levels of stress interferes with academic performance, causes him to get lower grades, may suffer from low self-esteem and other mental health problems^{5,6}. Continuous high level of stress may also influence the clinical situation especially in patient care.⁷ So the researcher wants to assess the sources of stress among PCL nursing students so that education environment might be created to minimize stress among students.

Methods

Descriptive cross sectional study was conducted among PCL nursing students currently studying in Nursing Campus Maharajgunj (NCM) and Lalitpur Nursing campus (LNC) of the Institute of Medicine during June and July 2013. Sample size was 287 (153 from NCM and 134 from LNC). Students who are willing to participate in the study were included in the study. Semi structured questionnaire for demographic information and rating scale for the sources of stress was developed by the researcher based on review of similar studies.

Ethical approval was taken from the Institutional Review Board of Institute of Medicine. An Informed verbal consent was taken from the students after explanation about study and its purpose. The questionnaire was pretested among nursing students (7% of the sample size) of MNC and they were excluded from the study. Reliability of the instrument was tested using Chronbach alpha test and reliability score was 66%. Self-administered questionnaire was distributed to students in the presence of researcher. Statement related to stress experience were rated on a five-point scale, ranging from 1 to 5 (1=never experienced, 2 = seldom, 3=sometime, 4=often and 5= always experienced). The higher mean score of each dimension indicates high stress experience this coping style. Data entry and analysis was carried using SPSS version 18. Both descriptive statistics and Pearson correlation test was used for data analysis.

Results:

Among the 287 PCL nursing students, 95 (33.1%) were from First year, 98 (34.1%) from second year and 94 (32.8%) from third year (Table 1).

Table1: Distribution of Students according to Campus and Level

Campus and Level (n=287)	No.	%
Name of Nursing Campuses		
Nursing Campus Maharajgunj	153	53.3
Lalitpur Nursing Campus	134	46.7
Level of Students		
PCL First Year	95	33.1
PCL Second Year	98	34.1
PCL Third Year	94	32.8
Total	287	100

Age of the respondents ranged from 15 years to 25 years. Highest percentage was 18-21 years 185 (64.5%) followed by < 18 years 85 (29.6%). Mean age was 18.32±1.41 years. Highest number of students were Bramhan and Chhetri 126 (44%) followed by Newar 86 (30%), Mangolians (Gurung, Magar, Tamang) 62 (21.6%). Majority of students were

Hindus 237(82.6%) followed by Buddhist 37(12.9%) and Christian 13(4.5%). Majority 245 (85.6%) of them belong to nuclear family. Most of them 284 (99%) were unmarried (Table 2).

Table 2: Demographic Information of the Students

Demographic Variables	No.	%
Age		
<18 Years	85	29.6
18-21 Years	185	64.5
> 21 Years	17	5.9
Mean Age	18.3	
SD	1.4	
Ethnic Group		
Bramhan, Chhetri	126	44.0
Newar	86	30.0
Mangolian (Gurung, Magar, Tamang)	62	21.6
Kirat (Rai, Limbu, Subba)	9	3.1
Dalit	3	1.0
Tharu	1	0.3
Religion		
Hindu	237	82.6
Buddhism	37	12.9
Christian	13	4.5
Marital status		
Unmarried	284	99.0
Married	3	1.0
Type of Family		
Nuclear	245	85.6
Joint	42	14.4
Total	287	100

Majority of students 232(80.8%) were living in hostel and 55(19.2%) outside the hostel. Travel time to come campus from outside were minimum 15 minutes to maximum 1 hour (Table 3).

Table 3: Living Status of the PCL Nursing Students (n=287)

Living Status	No.	%
Living in Hostel	232	80.8
Living Outside Hostel	55	19.2
Total	287	100
Approximate Travel Time for Living Outside the Hostel (n=55)		
<20 minutes	12	21.8
20-30 minutes	17	30.9
30-40 minutes	4	7.3
40-45 minutes	13	23.6
>50 minutes	9	16.4
Total Mean	55	100

Students from within the Kathmandu valley were 128 (44.5%) while 159 (55.41%) were from outside the valley. Among students within the valley, half 64(50.0%) were from Kathmandu (Table 4).

Table 4: Permanent Address of the Students (n=287)

Permanent Address of Students	No.	%
Within the Kathmandu Valley	128	44.59
Kathmandu	64	50.0
Bhaktapur	36	28.12
Lalitpur	28	21.88
Outside the Kathmandu Valley	159	55.41
Total	287	100

Developmental region wise distribution of the students shows that majority 197 (68.64%) were from Central Development Region, 67 (23.3%) and 29 (10.10%) were from Western and Eastern Development region respectively. There were very few representation from Mid-western region 5 (1.74%) and Far-western region 3 (1%) (Table 5).

Table 5: Distribution of Students according to Development Region (n=287)

Development Region	No.	%
Eastern Development Region	29	10.10
Central Development Region	197	68.64
Western Development Region	67	23.3
Mid-western Development Region	5	1.74
Far Western Development Region	3	1
Total	287	100

The most common stress among PCL nursing students was personal-environmental stress indicated by mean 3.17 ± 0.67 , followed by clinical stress (mean 2.99 ± 0.51) and academic stress (2.97 ± 0.97) (Table 6, 7, 8). The top 5 sources of clinical stress among PCL nursing students were the preparation and submission of the assignment (3.35 ± 1.073) followed by difference between real situation and ideal situation (theory practice gap) (3.34 ± 0.961), lack of hospital facilities and equipment for procedures (3.29 ± 1.046) patient with serious diseases/ suffering (3.21 ± 1.105) and unfamiliar environment of the health care setting (mean 3.18 ± 1.041). The other 5 sources of clinical stress were doing bedside care to the patient (3.07 ± 1.031), little direction as to what is expected to them/Feedback from teacher (3.07 ± 1.109), to many patients to handle (2.92 ± 1.105), inadequate knowledge and skill needed to care the patient (2.92 ± 1.016), relationship with the clinical instructors/supervisors (2.83 ± 1.137) (Table 6).

Table 6: Academic Stress among PCL Nursing Students (n=287)

SN	Clinical Stressors	Mean	SD
1	Doing bedside care to the patient.	3.07	1.073
2	Too many patients to handle	2.92	0.961
3	Inadequate knowledge and skill needed to care the patient.	2.92	1.046
4	Time for preparation and submission of the assignment	3.35	1.105
5	Patient with serious diseases/ suffering of the patient.	3.2	3.104
6	Lack of hospital facilities and equipments for procedures.	3.29	1.109
7	Little direction as to what is expected to you/Feedback from teacher	3.07	1.031
8	Relationship with the peers.	2.64	0.945
9	Relationship with the clinical instructors/supervisors (support from clinical teachers)	2.83	1.016
10	Relationship with the nursing staffs of the clinical areas/ social environment in clinical area.	2.81	1.137
11	Relationship with the doctors or other coworkers	2.62	0.993
12	Relationship with the patient's family, relatives and visitors.	2.67	1.090
13	Difference between real situation and ideal situation (theory and practice gap).	3.34	1.162
14	Unfamiliar health care setting in the hospitals.	3.34	1.122
Mean		2.99	
SD		0.51	

Table 7: Academic Stress among PCL Nursing Students (n=287)

SN	Academic Stressors	Mean	SD
1	Inability to balance study and leisure time	3.62	1.017
2	Test, examination and evaluation	3.48	1.231
3	Length of class hours	3.32	1.182
4	Inability to concentrate on study/ Lack of interest in studies	3.21	1.095
5	Fear of failure	3.04	1.214
6	Dissatisfaction with classroom performance	3.01	1.059
7	Difficult to complete work assignment	2.84	0.980
8	Poor IPR with teachers	2.74	1.146
9	Inadequate resources (books and computer)	2.45	1.208
10	Difficult to understand language used by teacher/ teaching style	2.16	0.915
Mean		2.97	
SD		0.61	

Sources of academic stress among PCL nursing students in sequence were inability to balance study and leisure time (3.62 ± 1.017) followed by test, examination and evaluation (3.48 ± 1.231), length of class hour (3.32 ± 1.182), inability to concentrate on study (3.21 ± 1.059), fear of failure/low grade (3.04 ± 1.124) (Table 7).

Personal environmental stress of the students reveals that their greatest stress was related to parent's expectation (3.48 ± 1.243) followed by change in eating, sleeping pattern (3.32 ± 1.114), lack of play and recreational activities (3.32 ± 1.263), financial problem (3.21 ± 1.211) and inadequate facilities of canteen and mess (3.19 ± 1.249) (table 8).

Table 8: Personal- environmental Stressors among PCL Nursing Students (n=287)

SN	Personal- environmental Stressors	Mean	SD
1	Parent's expectation	3.48	1.243
2	Decline in personal health/ health of family member	3.38	1.127
3	Change in eating sleeping pattern	3.32	1.114
4	Lack of play and recreational activities	3.32	1.263
5	Financial problems	3.20	1.211
6	Inadequate facilities of canteen/ mess	3.19	1.249
7	Homesickness in hostel	3.08	1.397
8	Lack of calm and quiet environment	2.98	1.216
9	Distance between home and college	2.90	1.405
10	Reduced social relationship	2.79	1.160
Mean		3.17	
SD		0.67	

Correlation between personal-environmental and clinical stress, personal-environmental and academic stress as well as academic and clinical stress were significant (Pearson Correlation test Score: 36%, 51% and 45% respectively) at the 0.01 level.

Prevalence of stress among different level of students shows that personal-social stress was most common among third year (3.24 ± 0.73) least common among second year (3.12 ± 0.67). Clinical stress was highest among PCL second year students (3.11 ± 0.51) and lowest among first year (mean 2.88 ± 0.53). Similarly, academic stress was commonest among third year students (3.03 ± 0.63) and least common among first year (2.91 ± 0.55) (Table 9).

Table 9: Distribution of Stress among Different Level of Students

Level of Students	Types of Stress	Mean	Standard Deviation
First Year	Personal-environmental stressor	3.14	0.60
	Academic stressor	2.19	0.55
	Clinical Stressor	2.88	0.53
Second Year	Personal-environmental stressor	3.12	0.67
	Clinical Stressor	3.11	0.51
	Academic stressor	2.98	0.66
Third Year	Personal-environmental stressor	3.24	0.73
	Academic stressor	3.03	0.63
	Clinical Stressor	2.96	0.47

Discussion

Demographic distribution of student shows that majority of students are from Bramhan Chhetri and Newar ethnic group who are relatively advanced group in the society. Majority of students (68.64) were from Central Development region, 128 (44.5%) from Kathmandu valley.

Stress reported among nursing students is categorized as academic, clinical and personal-environmental sources of stress. According to finding of the study, personal-environmental factor is most common stress to PCL nursing students followed by clinical and academic stress. But in a study done by Gibbon, Dempster and Mourtey in 2009 clinical placement related stress was common among nursing students⁵.

Academic and personal-environmental stress was highest among third year students. Similarly, clinical stress was most common among second year. A cross-sectional study, done by Lindop (1991) reported differences in stressors by academic year with high levels of stress among higher levels (second and third years). The clinical context is more intense in higher level of the programme⁸.

The most common clinical stress was assignment (time for preparation and submission of assignment) load which is supported by the study done by Agolla and Ongori Ongori. The study cited that assignment load leaves them with no time to enjoy their social life and cause stress.²

Other clinical stressors in sequence were difference between real and ideal situation, lack of hospital facilities and equipments and patient with serious disease and suffering respectively. Study done by Evans & Kelly (2004), among third year students at a university hospital in Dublin, also found similar finding⁹.

In this study, bed side clinic, inadequate knowledge and skill needed in clinical, too many patients to handle are included behind top 5 stressors. The cross-sectional study to examine the nature of stressors related to clinical experience of nursing students by Sheu et.al 2002 revealed the most common stressors as the lack of knowledge and professional abilities followed by taking care of patients.¹⁰ Using a similar sample and the same instrument, Chan et al. (2009) also reported that the most common type of stressor among students was a lack of knowledge and professional skills, followed by the stress of the tasks and workload and the stress resulting from patient care¹.

Inability to balance study and leisure time and test and examination are top 2 academic stressors in this study. The study done by Evans & Kelly (2004), support this finding. The length of class hour was also indicated as

top third academic stressor in this study which is not much significant stressor in previous studies^{9, 3}. Fear of failure was the fifth stressor in this study. The study done by Agolla and Ongori in 2009 indicates that (81%) of the students viewed academic workload as stressful². Many studies have revealed inadequate resources (books, computers) as significant stressor but it is insignificant in this study^{1, 3}. In this study, parents' expectation was the top most personal stressor and finding is supported by the study done by Agolla, and Ongori 2009 in which (47%) rated high expectations from parents, relatives and friends as stressful.² Change in eating, sleeping pattern, lack of play and recreational pattern, and financial problems were also within common stressors in this study. The finding is supported by the study done by Goff 2009 and Seyed, and Tafreshi, 2007^{12, 13}.

Conclusion

Based on findings of the study, it is concluded that stress is prevalent among PCL nursing students. Stress is more common among second and third year than in first year. Assignment load, as well as gap between theory and practice is felt as significant stress in clinical. Similarly, Test and examination, length of class hour, high parental expectation, and change in eating-sleeping pattern, lack of play and recreational activities are also rated as stressful. These factors should be considered by faculties, administration as well as parents to minimize PCL nursing students' stress and activities to enhance coping mechanism of the PCL nursing students should be considered by concerned authorities.

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