

**STRESS, STRESSORS AND COPING STRATEGIES AMONG NURSING STUDENTS,
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ABSTRACT

Objectives: This study was conducted to find out the stress, stressors, and coping strategies among bachelor level of nursing students studying at Chitwan Medical College (CMC). **Materials and Methods:** A descriptive cross sectional study design was adapted and total 194 nursing students of bachelor level were selected with enumerative sampling technique. The data was collected from 12-09-2019 to 03-10-2019 through a self-administered questionnaire by utilizing Perceived Stress Scale (PSS), and Brief Cope Questionnaire. **Results:** Of the 194 respondents 69 were from BNS(Bachelor of Nursing Science) and 125 from BSc. (Bachelor of Science in Nursing) nursing, 53.1% are aged ≥ 22 years, 91.2% were Hindu, and 90.2% were unmarried. Similarly 69.6% were living at home and 93.3% were getting financial support from parents. Total 48.5% students had mild, 23.7% had moderate and 27.8% had severe stress. The highest ranking stressor was reported being assignment and workload (Mean- 23.38; SD- 5.40), stress from clinical assignment (Mean- 14.28; SD- 3.15), and stress from peers and daily life (Mean-10.19; SD-3.05). Only 28.9% had good coping, while most commonly adapted coping strategies includes active coping (Mean-5.68; SD-1.34), acceptance (Mean-5.60; SD-1.54) and planning (Mean-5.59; SD-1.36). There is a significant association between level of stress and living arrangement ($p=0.019$) and level of coping and living arrangement ($p=0.009$). Spearman's rho correlation ($p<0.001$) between level of stress and level of coping is moderately associated.

INTRODUCTION

Stress is the body's natural defense against predators and danger and coping is the way how a body reacts to it. Stress is defined as one's body reaction when it comes across situations and changes that expect an adjustment or a response & stressor is the stimulant behind whatever the body reacts to.^[1] Stress is a common element in the lives of every individual, regardless of race or cultural background.^[2] And it can have both negative and positive impact depending on the individual and their level of coping, and strategies adapted. People have rated medical and nursing science study being comparatively difficult as it involves exposure to numerous physical and emotional stressors on a daily basis. When it comes to this specific topic, there has been a significant amount of researches and investigations contributing to the issues and management of stress.^[3] Among 'the major issues discussed, studies have shown that the Medical education is one of the most stressful academic curricula which reportedly has negatively affected both the physical and mental health of those related to the niche.^[4] And as far as the Medical education and exposure goes, both the academic and clinical fields have amounted to being

stressors according to many research findings.^[5] If not dealt with properly, these stressors and stress level can lead to a very negative impact physically, mentally and emotionally. Therefore, this study entitled "Stress, stressors, and Coping Strategies among Undergraduate Nursing Students of Chitwan Medical College, Nepal" is aimed at finding the stress level, stressors, and coping strategies adapted. The results and findings can be utilized to gain the overall knowledge and insight into their lives of stress level and the coping methods applied while comparing the negative and positive effects it might have.

METHODOLOGY

A descriptive cross sectional study was carried out at Chitwan Medical College, Nepal among the students of BNS and Bsc. Total of 194 nursing students, 69 BNS and 125 Bsc, were selected with enumerative sampling technique. The data collected was dated 12-09-2019 to 03-10-2019, through a self-administered questionnaire by utilizing Perceived Stress Scale (PSS), and Brief Cope Questionnaire. Students participated voluntarily in the study and informed consent was signed

from them after explaining them the objectives of the study.

Level of the total stress and coping was calculated as follows.^[6]

Mild < 50%

Moderate 50% - 75%

Severe >75%

RESULTS

Table 1: Socio-demographic Information of Respondents.

n=194

Variables	Number	Percentage
Age in years		
<22	91	46.90
≥22	103	53.1
Religion		
Hinduism	177	91.20
Buddhism	14	7.20
Christian	1	0.50
Kirat	2	1.00
Marital status		
Married	19	9.80
Unmarried	175	90.20
Living arrangements		
Home	135	69.60
Hostel	59	30.40
Financial support		
Parents	181	93.30
Self	1	0.50
Husband	12	6.20
Educational status		
BNS	69	35.60
BSc	125	64.40
Academic year (BNS)		
First	32	16.49
Second	26	13.40
Third	11	5.67
(BSc)		
First	37	19.07
Second	37	19.07
Third	22	11.35
Fourth	29	14.95

Table 1 revealed that majority (53.1%) of nursing students belongs to the age group of more or equals to 22 years, 91% Hindu, and 9.8% were married. Similarly 69.6% were living at their home, 93% had financial support from their parents. Of two different nursing programs; 35% students were from BNS and 64.4% were from BSc.

Table 2: Perceived Stress of Nursing Students.

n=194

Program	Level of Stress		
	Mild No. (%)	Moderate No. (%)	Severe No. (%)
BNS	32 (46.40)	17 (24.60)	20 (29.00)
BSc	62 (49.60)	29 (23.20)	34 (27.20)
Total	94 (48.50)	46 (23.70)	54 (27.80)

Table 2 showed the level of stress where majority (less than 50%) nursing students had mild depression. Majority of BNS (46.4%) and BSc (49.6%) students had mild level of stress and least number of BNS (24.6%) and BSc (23.2%) students had moderate level of stress.

Table 3: Perceived Stress of Nursing Students in Relation to Program and Academic Year.

n=194

Academic Year	Level of Stress (BNS-69)		
	Mild No. (%)	Moderate No. (%)	Severe No. (%)
First Year	7 (21.90)	11(34.40)	14(43.80)
Second year	15(57.50)	5(19.20)	6(23.10)
Third year	10 (90.90)	1(9.10)	-
Academic Year	Level of Stress (BSc-125)		
	Mild No. (%)	Moderate No. (%)	Severe No. (%)
First Year	15 (40.50)	5 (13.50)	17 (46.00)
Second year	14 (37.90)	13(35.10)	10 (27.00)
Third year	10 (45.50)	5 (22.70)	7 (31.80)
Fourth year	23 (79.30)	6 (20.70)	-

Table 3 represent the level of stress according to program and academic year where both BNS and BSc program had same trend of decreasing the level of stress as academic year increases.

Table 4: Stressors Perceived by Nursing Students.

n=194

Domain	No. of items	Rank	Possible max value	Minimum	Maximum	Mean	SD	Mean %
Stress from lack of professional knowledge and skills	4	5	20	5	18	10.28	2.60	51.42
Stress from assignments and workload	7	1	35	9	35	23.38	5.40	66.79
Stress from taking care of patients	8	6	40	10	32	19.87	4.77	49.66
Stress from clinical environment	5	2	25	7	24	14.28	3.15	57.13
Stress from teachers and nursing staff	6	4	30	7	29	16.06	4.43	53.54
Stress from peers and daily life	4	3	20	4	20	10.91	3.05	54.56
Total	34		170	50.00	143.00	94.78	17.16	55.76

Table 4 depicted the stressors most commonly experienced by nursing students. Here stress from assignments and workload is highly experienced comparatively than others with mean score=23.38 and SD=5.40.

Table 6 reveals that the higher number (36.4%) of third year had good coping compared to first and second year of BNS students. When it comes to the BSc. students, the level of good coping seemed to be improving while it seemingly decreased in the last two years.

Table 5: Respondents' Level of Coping.

n=194

Program	Level of Coping		
	Good No. (%)	Fair No. (%)	Poor No. (%)
BNS	20 (29.00)	17 (24.60)	32 (46.40)
BSc.	36 (28.80)	26 (20.80)	63 (50.40)
Total	56 (28.90)	43 (22.20)	95 (49.00)

Table 5 showed that majority (49.0%) of nursing students had overall poor coping with BNS (46.4%), and BSc (50.4%). Only 28.9% had overall good coping with BNS (29.0%) and BSc (28.8%).

Table 6: Respondents' Level of Coping in relation to Program and Academic year.

n=194

Academic Year	Level of Coping (BNS-69)		
	Good No. (%)	Fair No. (%)	Poor No. (%)
First Year	9 (28.10)	11 (34.40)	12 (37.50)
Second year	7 ((26.90)	6 (23.10)	13 (50)
Third year	4 (36.40)	-	7 (63.60)
Academic Year	Level of Coping (BSc.-125)		
	Good No. (%)	Fair No. (%)	Poor No. (%)
First Year	7 (18.90)	8 (21.60)	22 (59.50)
Second year	14 (37.80)	6 (16.20)	17 (45.90)
Third year	8 (36.40)	4 (18.20)	10 (45.50)
Fourth year	7 (24.10)	8 (27.60)	14 (48.30)

Table 7: Coping Strategies adapted by Nursing Students.

n=194

Domain	No. of Item	Rank	Possible Max value	Minimum	Maximum	Mean	SD	Mean%
Self distraction	2	6	8	2	8	5.48	1.46	68.49
Active coping	2	1	8	2	8	5.68	1.34	71.01
Denial	2	11	8	2	8	4.17	1.60	52.13
Substance use	2	15	8	2	8	2.93	1.46	36.60
Use of emotional support	2	8	8	2	8	5.09	1.50	63.66
Behavioral disengagement	2	13	8	2	8	4.03	1.44	50.39
Emotion focused coping	4	5	16	4	16	11.09	2.26	69.33
Use of instrumental support	2	7	8	2	8	5.41	1.62	67.65
Venting	2	10	8	2	8	4.99	1.33	62.44
Positive reframing	2	4	8	2	8	5.57	1.42	69.59
Planning	2	3	8	2	8	5.59	1.36	69.85
Humor	2	14	8	2	8	3.70	1.76	46.26
Acceptance	2	2	8	2	8	5.60	1.54	70.04
Religion	2	8	8	2	8	5.09	1.38	63.66
Self blame	2	12	8	2	8	4.11	1.54	51.42
Total	32		128	54	115	78.55	9.97	61.36

In table 7, we can see all of the coping mechanisms the students have adapted during their student life. When ranked and compared, the highest ranking coping mechanisms are Active Coping (71.01%), and

Acceptance (70.04%). Not far off the next on the ranking are Planning (69.85%), and Positive reframing (69.59%). Placed at the lowest ranking coping mechanism is Humor (46.26%).

Table 8: Association between Respondents' Level of Stress and Selected Variables.

Variable	Level of Stress			Chi- square (χ^2)	P-value
	Mild No. (%)	Moderate No. (%)	Severe No. (%)		
Age					
<22 years	35 (38.50)	24 (26.40)	32 (35.10)	7.352	0.250
≥22 years	59 (57.30)	22 (21.40)	22 (21.40)		
Program					
BNS	32 (46.40)	17 (24.60)	20 (29.00)	.185	.912
BSc	62 (49.60)	29 (23.20)	34 (27.20)		
Religion					
Hindu	90 (50.80)	41 (23.20)	46 (26)	5.118	.077
Non-Hindu	4 (23.50)	5 (29.40)	8 (47.10)		
Marital status					
Married	9 (47.40)	6 (31.60)	4 (21.00)	.903	.632
Unmarried	85 (48.60)	40 (22.90)	50 (28.60)		
Living arrangement					
Home	73 (54.10)	32 (23.70)	30 (22.20)	7.918	.019
Hostel	21 (35.60)	14 (23.70)	24 (40.70)		
Financial support					
Parents	87 (48.00)	41 (22.70)	53 (29.30)	4.568	.335
Self	1 (100.00)	0.00	0.00		
Husband	6 (50.00)	5 (41.70)	1 (8.30)		

*Significant at $p < 0.05$

Table 8 is a comparison of the overall stress level and their significant association with the various factors. From the result, we can see that only the living arrangement is directly associated with the stress level with p-value of < 0.05 .

Table 9: Association between Respondents' Level of Coping and Selected Variables.

Variable	Level of Stress			Chi- square (χ^2)	P-value
	Good No. (%)	Fair No. (%)	Poor No. (%)		
Age					
<22 years	29 (31.80)	19 (20.90)	43 (47.30)	.766	.682
≥22 years	27 (26.20)	24 (23.30)	52 (50.50)		
Program					
BNS	20 (29.00)	17 (24.60)	32 (46.40)	.443	.801
BSc	36 (28.80)	26 (20.80)	63 (50.40)		
Religion					
Hindu	49 (27.70)	38 (21.50)	90 (50.80)	2.875	.238
Non-Hindu	7 (41.20)	5 (29.40)	5 (29.40)		
Marital status					
Married	5 (26.30)	2 (10.50)	12 (63.20)	2.201	.333
Unmarried	51 (29.10)	41 (23.40)	83 (47.40)		
Living arrangement					
Home	44 (32.60)	22 (16.30)	69 (51.10)	9.449	.009
Hostel	12 (20.30)	21 (35.60)	26 (44.10)		
Financial support					
Parents	53 (29.30)	42 (23.20)	86 (47.50)	3.085	.544
Self	0.00	0.00	1 (100)		
Husband	3 (25.00)	1 (8.30)	8 (66.70)		

*Significant at $p < 0.05$

Table 9 is a comparison of the overall coping level and their significant association with the various factors. From the result, we can see that only the living arrangement is directly associated with the coping level with p-value of < 0.05 .

Spearman's rho correlation between level of stress and coping is $R=0.264$ ($p < 0.001$) which is moderately correlated.

DISCUSSION

One of the major factors affecting the students in Nursing has first and foremost been the level of stress they go through in general. More likely susceptible to various stressing factors or stressors because of their field of study and environment they are exposed to; it is a threat to the overall well-being if not dealt with in an effective manner. Feeling of tiredness, hopelessness, nervousness and even physical symptoms will ensue. When faced with stress on a daily basis whether it is because of the work-load, academic, or emotional factors; it is very important to enforce a positive way to deal with it. Thus, the knowledge of the level of stress, major stressors, coping mechanisms adapted and the proper way to resolve it is vital. Therefore, this current study is aimed to highlight the level of stress among the students of BNS Nursing and BSc. at Chitwan Medical College, Nepal, and also to identify major stressors. With this, we also wanted to shed light on the coping strategies both positive and negative, that the students have adapted.

When presented with the questionnaire the study found higher number (48.5%) of nursing students had mild

stress while 23.7% had moderate and 27.8% had severe stress. Similar trends of stress level found in both BNS and BSc. where in BNS program; 46.4% had mild, 24.6% had moderate, and 29.0% had severe level of stress in BSc. 48.5% had mild, 23.2% had moderate, and 27.2% had severe level of stress was reported. A study among medical students at Bahir Dar University resulted in a similar conclusion, where 27.6% had severe stress, while 27.6% faced mild stress.^[7] Similar study conducted among the Bachelor Level Nursing students in Nepal also suggested that the majority of the perceived stress were at moderate level.^[8] Another research done in Lahore also showcased a similar pattern of level of stress where the majority of the stress was considered moderate at 71.67%, while 20.83% felt a high level of stress and the remaining 7.5% categorized it as mild.^[9]

Another point our study concluded that the stress level is significantly related to the academic level the students are involved in. It showcased that the senior students displayed less stress level than the juniors who have just started out. Both among the BSc. and BNS students, the level of stress decreased noticeably until the last year of the academic experience. This might have to deal with the fact that with more exposure and progress to higher study, the skills and mastery as well as the experience makes it easy to deal with their stressors. According to various other researches^[8, 10], the conclusion was similar supporting this findings where the stress and the effects were low in seniors. However, according to one study by Nurdath Sohail in Lahore, the results were contradicting. Here, the seniors displayed higher levels of stress and the morbidities in comparison to the students in junior level.^[9]

Nursing and Medical field in general is a hectic and challenging profession and study in itself; which means that the ones involved are always at a risk of unwelcomed stressors. And the countless factors of stress are a huge part of one's commitment to it. This includes the major affecting points like personal preferences, social support and skills, academic results and expectations, work overload, less leisure and break periods, interpersonal conflicts, even the working environment and lifestyle changes. These play a huge role in making an impact whether positive or negative on the students and how they respond and react. When asked about the most impactful stressor that has affected them, the top ranking answers were the overwhelming workload (Mean=23.38, SD=5.398), taking care of patient (Mean= 19.87, SD=4.77), lack from professional knowledge and skill (Mean=10.28, SD of 2.603). To support our findings, a study by Zhao and R Devkota also found similar result with stress from assignment and workload being the top stressor.^[11] Other study has stated reasons like lack of care, social stressors as the top contender.^[12, 13]

While the stressors may differ; the effect it takes on the students are most likely similar. Manifestation of stress at high level takes a bad turn when negative coping strategies are adapted. Our study concluded that there are various coping strategies that the students have developed to cope with their stress. The most commonly adapted strategies were Active Coping (Mean=5.68, SD=1.34), Acceptance (Mean=5.60, SD=1.54), and Planning (Mean=5.59, SD=1.36). Other studies suggest that more students relied on their religious belief as their effective coping method. However, the study also found the majority using venting, denial, distracting, concentrated efforts, positive reframing along with disengagement, use of emotional support, and substance abuse.^[6, 14, 15, 16]

Talking about the coping level among the students, the questionnaire resulted with Poor coping ranked highest (49%) while Good (28.9%) and Fair (22.2%) were comparatively lower.

CONCLUSION

After our study was completed, the conclusion was that the majority of the students of Nursing felt mild stress while moderate stress was also visible. The major stressors were found to be academic assignment and workload amongst the others. When it came to the coping strategies we also found that to deal with the stressful conditions, the students relied on various coping mechanisms where the majority relied on active coping, acceptance and planning.

After a brief evaluation of the stats we collected, we came to the conclusion that even though, the level of stress was limited to mild and moderate, the coping level was poor.

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