

Influence of personal factors on the perceived stress level of college of nursing students

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Abstract: Stress is a response to a situation where the person faces difficult to cope with. During academic progress nursing students undergo considerable amount of stress with classroom studies and clinical practices which reflect on their course performance, to overcome this problem students are using several personal stress management skills in various degree. To address this problem, influence of stress management skills are examined against individuals perceived stress level. An institutional based cross-sectional study was conducted among 172 final year nursing students in college of nursing Jaffna with a self administered questionnaire. Analysis of data reveals that mean stress level (19.55) is greater among nursing students when compared with the normal value of PSS score (14.2). No significant difference in stress level with age was discovered. Female students, student who complete A/L in other than bio stream showed grater mean stress level but without statistical significance. When the personal skills to avoid stress were compared with perceived stress level; time management, personal interest on nursing, problem solving techniques, setting achievable goal, ability to say "no" and escape or avoidance had statistically significant reducing effect on stress level. Relaxation, leisure activities and relationship support are the significant coping strategies. As nursing is a stressful profession, nursing students undergo considerable amount of stress. With the best stress management skills students can reduce the stress level and improve their academic performance.

Keywords: Nursing students, Perceived stress level, Personal stress management skills.

I. Background and objectives

Stress can be defined as any problem or situation that a person find difficult to face and cope [1]. Stress is commonly caused by imbalance between demands made by external sources and the capabilities to meet those demands. Perception of Stress greatly depends on individuals' personality [2]. Stress usually leads to adverse physiological and psychological consequences.

Nursing is a stressful occupation by nature [3]. Nurses have an important role on health care system. They are the front line workers who directly deal with the patients. They have more involvement on patients emotions which make them stressed and burnt out [4] lot of researches had been done on stress of nurses [5]. The goal of any nursing education program is to produce competent professional nurse. During the study period nursing students undergo considerable amount of stress with classroom studies and clinical practices [6] [7] mainly due to poor relationship with college administration, unclear expectations of course curriculum, educational demands affect on their personal life [8], fear of failing, long study hours, new role and responsibilities, theory-practical gap, poor relationship with college teachers, conflict with hospital staff, lack of free time, role conflicts on clinical study setups and frequent examinations [9].

Apart from academic stressors environmental, interpersonal, financial and personal stressors [10] also play a vital role on their stress level. Even though nursing students are prone to stress and burnt out they use multiple personal stress management skills to overcome the stress. In the day to day clinical practice they frequently face stressful situations and manage themselves with personal stress management skills. Stress management skills show a vast variation between students; some students easily overcome the stress while others feel difficult to cope with it.

Objective

Objective of the study is to measure the perceived stress level of nursing students and to examine it against some selected contributing factors of stress and the coping strategies employed by the students to ease stress.

II. Research design and method

Cross sectional descriptive study was conducted among all the final year nursing students in colleges of nursing Jaffna with a self administered questionnaire. Section A of the questionnaire collected demographic data, section B for Perceived stress level, Section C for skills used to stress management, Section D for identifying coping styles following stressful event. Perceived stress level measured by Perceived stress

scale(PSS) [11], it is a global measure of perceived stress, developed by American Sociological Association, normal value of Perceived stress scale is 14.2 (SD±6.2) out of 40. Informed consent was obtained from each participant after explain the objectives of the study and assured that the information obtained would be use only for research purpose. Statistical package of social science 19 software was used to analyze the data, chi squared test was used to find out the significant relationship. In the chi squared test, P value <0.05 was considered as significant relationship.

III. Findings

From the total population of 186 final year nursing students, 172 valid questionnaires were obtained (non respondent rate was 7.60). In the demographic characteristics of responders two third of the samples were female (115), this pattern of gender representation reflect the ongoing trend of female dominated Nursing profession in sri lanka. The mean age of participants was 25.23 years (SD±1.266) with the range between 23-31 years. Among the respondents, 26 students complete A/L in Bio stream and 146 are in other streams.

TABLE 1: Demographic Characteristics of students

DEMOGRAPHIC CHARECTERISTICS	NO	PERCENTAGE %
Age(Years)		
23	10	5.8
24	42	24.4
25	47	27.3
26	58	33.7
27	8	4.7
28	3	1.7
29	3	1.7
31	1	0.6
Sex		
Male	57	33.1
Female	115	66.9
A/L stream		
Bio	26	15.1
Other	146	84.9

TABLE 2: PSS and Demographic Characteristics

SUBJECTS	STRESS LEVEL		CHI-SQUARD	
	MEAN	SD	VALUE	P-VALUE
Age				
23	21.40	7.38	2.41	0.203
24	19.40	6.11		
25	19.04	7.56		
26	20.43	6.23		
27	16.62	3.42		
28	21.00	2.64		
29	17.66	7.57		
31	05.00	-		
Sex				
Male	18.10	6.01	26.307	0.750
Female	20.26	6.79		
A/L stream				
Bio	17.00	6.01	31.24	0.505
Other	20.00	6.79		

The mean Perceived stress level was 19.55(SD±6.6123), ranging from 02-38 out of 40. but male students have relatively less mean perceived stress level (18.1053) than females (20.2696) and also students who complete A/L in bio stream have relatively less mean perceived stress level (17.0000) than the students who complete A/L in other stream (20.0068) But these differences didn't show statistical significance.

(Table 2)

Personal skills to avoid stress such as time management, personal interest on nursing, problem solving techniques, setting achievable goal, ability to say "no" and escape or avoidance had statistically significant reducing effect on the perceived stress level. (Table 3)

Relaxation, leisure activities and relationship support are the coping strategies which had statically significant influence on the perceived stress level. (Table 4)

TABLE 3: Influence of factors that contributes to avoid stress

FACTORS	PERCENTAGE	STRESS LEVEL		CHI-SQUARE TEST	
		MEAN	SD	VALUE	P-VALUE
Time management					
Most of the time	62.8%	17.44	6.16	1.285	0.000*
Some times	26.7%	21.23	5.19		
Mostly no	10.5%	27.88	4.43		
Setting achievable goals					
Most of the time	55.2%	18.35	5.97	89.556	0.009*
Some times	39.0%	20.08	6.83		
Mostly no	5.8%	27.30	5.63		
Problem solving techniques					
Most of the time	43.0%	16.93	5.77	93.649	0.020*
Some times	51.7%	20.92	6.24		
Mostly no	5.2%	27.55	6.65		
Ability to say 'NO'					
Most of the time	35.5%	16.88	6.16	89.271	0.326
Some times	44.8%	20.19	5.49		
Mostly no	19.8%	22.88	7.90		
Escape or avoidance					
Most of the time	40.1%	17.30	6.86	88.888	0.000*
Some times	46.5%	19.80	5.59		
Mostly no	13.4%	25.43	5.43		
Rewarding self					
Most of the time	34.3%	17.11	6.28	68.530	
Some times	43.0%	20.24	5.87		
Mostly no	22.7%	21.92	7.37		
Personal interest on nursing					
Very interest	55.8%	16.16	5.55	1.457	
Little bit interest	30.8%	22.20	4.49		
No interest	13.4%	27.56	4.97		

TABLE 4: Influence of coping styles on the perceived stress level

COPING STYLE	PERCENTAGE	STRESS LEVEL		CHI-SQUARE TEST	
		MEAN	SD	VALUE	P-VALUE
Relationship support					
Most of the time	43.6%	18.61	5.71	84.815	0.042*
Some times	44.8%	20.28	6.70		
Mostly no	11.6%	20.25	8.96		
Leisure activities					
Most of the time	41.9%	16.05	5.19	92.321	0.012*
Some times	45.3%	21.89	5.87		
Mostly no	12.8%	22.68	8.10		
Ability to express feelings					
Most of the time	39.0%	18.25	6.17	82.765	0.057
Some times	48.3%	19.98	6.77		
Mostly no	12.8%	21.86	6.72		
Positive reappraisal					
Most of the time	42.4%	17.97	6.51	82.185	0.063
Some times	47.7%	20.56	6.17		
Mostly no	9.9%	21.47	7.92		
Relaxation.					
Most of the time	12.8%	15.59	6.52	93.638	0.009*
Some times	43.6%	18.72	5.46		
Mostly no	43.6%	21.54	7.04		

IV. Conclusions

It is clear that the nursing students of college of nursing Jaffna have elevated level of stress than normal range, but the stress level has a big range (2-38) due to individual variation of personal stress management skills. From the results it could be observed that the students who employed stress management skills appear to have less perceived stress level, and some personal skills made marked reduction on stress level. Factors like Time management and personal interest on nursing have high reducing effect on the stress level. So it's better to enter into nursing profession with personal interest so they can undertake their nursing education with low perceived stress. And also if the nursing education programme includes stress management skills, it may have beneficial effect on their stress level. Relaxation, relationship support and leisure activities are the best coping strategies to overcome stress. Self rewarding, expressing the feeling, positive reappraisal are well known stress management skills but in this study they didn't show significant relationship with stress level. This may be due to the nature of nursing profession as there is low chance to practice these skills in health care settings and work load may influence on the practice of this skills. This study gave some ways to further researches to identify more personal stress management skills and the degree of influence on the stress level, and also to find out the causes of the elevated stress level of the nursing students.

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