

Personality Traits, Academic Stress and Adjustment Styles among Nursing Students

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Abstract

Nursing students face extremely high level of stress in their beginning years. Certain personality traits make the students more vulnerable for using adjustment styles and handle the stress in subsequent years of study. The aim of this study was to see the relationship of academic stress with personality traits and adopted adjustment styles among nursing students. In this study conducted on 114 randomly selected nursing students, a socio-demographic data sheet, a short form revised Eysenck Personality Questionnaire-A Hindi edition (EPQRS-H), Academic Stress Scale and a brief COPE were administered. The data was analysed by using chi-square test, one way ANOVA and Pearson's correlation. Students reported more use of active and healthy coping styles and more environmental stressors. Academic stress shows negative correlation to extroversion ($p < 0.05$), neuroticism ($p < 0.05$), lie ($p < 0.05$) and psychoticism ($p < 0.05$) personality domains of nursing students. Students having extroversion used significantly more of support seeking style ($p = 0.05$), avoiding ($p = 0.05$), venting negative feelings ($p = 0.05$) and less use of substance abuse ($p = 0.05$) styles. A significantly higher group difference was observed in academic ($p = 0.015$), personal ($p = 0.015$) and environmental areas ($p = 0.004$) and was associated with psychoticism ($p = 0.029$) in students. Academic stress shows negative correlation with different dimensions of personality of nursing students. Students with extroversion had significantly more use of positive and less use of negative coping styles to adjust in environment.

Stress is common among nursing students and dealing with high level of stress in their day-to-day life need diverse adjustment styles Bakhshi & Mohamadi, 2002; Kumar & Nancy 2011). Studies in nursing have focused on general stress not on academic stress in relation to personality traits and adjustment styles. In country like India, where a bulky content is delivered in short span of time and the students are expected to write too frequent examinations. Nursing students may face problems. Such problems include: excessive clinical workload, writing more number of assignments, adjustment in new environment and difficulty in learning practical hand skills etc. (Dhar, et al 2008).

Chronic standing stress in nursing field may have detrimental impacts on health, academic performance, memory, learning, problem solving abilities and ultimately on patient care. Studies reported many physical and psychological problems as a consequence of long standing stress such as impulsivity, inattention, irritable bowel syndrome, signs of depression, menstrual disturbances, restlessness, aggression etc. (Abdulghani et al, 2011; Shahbazi et al, 2010). Presence of certain factors like age, gender, personality traits, and use of

adjustment styles intensify the vulnerability of stress (Rezakhani, 2011).

Personality of an individual equally plays an important role in adjustment to system and so nursing students. Eva, et al (2015) reported direct link between a specific personality traits and academic stress among medical students (Chatterjee, 2015). Personality traits like lie, neuroticism, extroversion and psychoticism, openness and conscientiousness have variable influence on academic stress and adjustment styles among nursing students (Eastaburg et al, 1994). Academic stress in medical students shows significant group difference among male and female; male were more neurotic and female more extroverted. However, no Indian study was conducted to explore the link between personality traits and academic stress in nursing students.

The perception of academic stress and the methods of handling stress is largely determined by the adjustment styles of nursing students. Adjustment styles employed by the students also determine academic stress and its impact on psychological and physical health and ultimately on academic and clinical performance (Ramkumar et al, 2011; Mahajan, 2010).

It is noticed that negative adjustment styles employed higher academic stress and vice-versa. It is also evident that presence of more stressors exaggerate academic

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stress among nursing students. Kumar & Nancy (2011) reported that class of nursing students had direct link with higher stress. However, it is oblivious that transition from school life to college life enables students, adjustment and subsequently may raise stress level.

Objectives

This study attempted to (i) assess level of academic stress, personality traits and adjustment styles among nursing students and (ii) determine relationship of academic stress to personality traits and adjustment styles.

Material & Methods

It was a descriptive cross-sectional survey in the month of May, 2017 by randomly selecting (simple random sampling by use of attendance register) on 114 nursing students at All India Institute of Medical Sciences, Rishikesh (Uttarakhand). Data was collected through a socio-demographic data sheet, academic stress scale, and Eysenck personality questionnaire-short form (EPQRS-H), which was distributed among nursing students.

Socio-demographic profile sheet: It consisted of personal information of students i.e. age, gender, class of study, parent's education and occupation, type of family, family income, physical health status and distance from home to institute etc.

Profession-related variables: It consisted additional information on variables related to profession and its nature: frequency of surfing net in a day, choice of nursing as carrier and attitude to nursing etc.

The Short Form revised Eysenck Personality Questionnaire-A Hindi edition (EPQRS- H) (Tiwari et al, 2009)

It is self-reported 48-item standardised questionnaire classified under four domains of personality namely; extraversion (12 items), neuroticism (12 items), lie (12 items) and psychoticism (12 items). Each question has binary response, 'Yes' and 'No' with higher score indicate dominant traits of specific personality in the subject. Each dichotomous scored 1 or 0 and each domain had maximum possible score 12 and minimum of 0 (score range= 0-12 for each domain). There is no overall score criteria or category for questionnaire. Reliability of extraversion, neuroticism, psychoticism and lie was found 0.77; 0.77; 0.24, and 0.62, respectively. Permission was sought to use the scale from concerned authority.

Academic stress scale: Academic stress scale was prepared and validated with the help of experts in the field of psychiatry, psychology and nursing. It has 31 items 5-point Likert rating scale namely; Not at all stressful

(1) to Extremely stressful (5); 31 items are categorised under 4 broad domains; personal factors (8 items), academic factors (8 items), environmental factors (8 items) and other factors (7 items). The reliability coefficient was 0.87 for the instrument.

The Brief COPE: The Brief COPE (Carver CS, 1997) was used to assess adjustment styles among nursing students. It is a 4-point scale varying from 1=not doing at all to 4= doing this a lot. It is 28 items scale and divided under 6 broad domains: active coping (8 items), support seeking (4 items), avoidance (4 items), expressing negative feelings (4 items), behavioural disengagement (6 items), and substance abuse(2 items). The reliability coefficient for the scale was 0.82.

Ethical consideration: Permission was obtained (ECR/736/Inst/UK/2015) after due clarification of related ethical principles. All students having given consent and filled the questionnaire were included in the study. All scales were administered to students at their respective classroom one by one. Collected data transferred to master data sheet and analysed by using SPSS version 23.

Results

Table 1 represent characteristic of nursing students; The mean age of nursing students was 20.30 (± 1.20) years. Of the total 114 students, all (100%) were female and unmarried (97.4%). Number of students were approximately similar from all classes.

Further, 69.3 percent students belonged to urban areas and have nuclear family (76.3%) structure. Of the students, 95.6 percent had monthly family income more than Rs. 5001/-. In terms of education and occupation of parents, around 58.8 percent students' father had education as graduate and above (58.8%). Similarly, 40.4 percent mothers of students educated up to graduation and working as homemaker (85.1%) whereas more number of father were working in govt sector (53.5%) and had monthly family income more than Rs. 5000/- per month (95.6%). In terms of internet surfing, 55.3 percent students reported 3-5 times in a day and reported herself average and healthy (49.1%). 65.8 percent students reported fair attitude towards nursing profession. Significant association was noticed between stress and age ($p=0.045$) and types of family ($p=0.012$). However, none of the other socio-demographic variable shows significant association with stress among nursing students (Table 1).

It was revealed that progressively nursing students were developing more features of psychoticism indicating developing insensitiveness, coldness, lack of empathy and irrational. In terms of stressors, adjusting in environment was bit difficult for newly joined

Table 1: Stress and subjects' characteristics (n=114)

Variables	f	(%)	p-value
Age (in years)	(Mean±SD) 20.30±1.20		0.045*
Gender (Female)	114	100	-
Class			
BSc (N) I Year	31	27.2	0.988
BSc (N) II Year	27	23.7	
BSc (N) III Year	29	25.4	
BSc (N) IV Year	27	23.7	
Marital status			
Unmarried	111	97.4	0.862
Married	03	2.6	
Types of family			
Joint	27	23.7	0.012*
Nuclear	87	76.3	
Habitat			
Urban	79	69.3	0.426
Rural	35	30.7	
Education of father			
Up to middle class	13	11.4	0.777
Up to senior secondary	34	29.8	
Graduate & above	76	58.8	
Education of mother			
Up to middle class	33	28.7	0.415
Up to senior secondary	35	30.7	
Graduate & above	46	40.4	
Occupation of father			
Businessman	19	16.5	0.737
Govt. employee	61	53.5	
Private employee	19	16.5	
Others*	15	13.2	
Occupation of mother			
Home maker	97	85.1	0.977
Govt. employee	11	9.6	
Private employee	04	3.5	
Others*	02	1.8	
Monthly family income (₹)			
<5000	04	4.4	0.863
>5001	110	95.6	
Attitude to nursing			
Negative	17	14.9	0.699
Fair	75	65.8	
Positive	22	19.3	
Frequency of surfing internet/day			
<2 times	28	24.6	0.633
3-5 times	63	55.3	
>5 times	23	20.2	
Physical health status (self-reported)			
Poor	02	1.8	0.898
Average	56	49.1	
Good	56	49.1	

*Others: Shopkeeper, agriculture work, daily wages job; age was categorised in <18 years; 19-21 years and >21 years for association; *significant at $p<0.05$.

nursing students in facing problems related to bad living condition, crisis of technical facilities, and alteration in fearful and strange clinical atmosphere. Fur-

ther, findings revealed that a large group of students actively managing theses crisis by seeing support from other students and faculty members and ventilating negative feelings before they feel comfortable. However, a very few students also used negative coping styles like use of substance abuse and behavioural disengagement (Table 2).

Significant group difference was noticed between stress domains and class of nursing students. It was revealed that academic ($p=0.015$), personal ($p=0.015$), environmental ($p=0.004$) stressors had significant group difference for stress among different class of nursing students. Further, the senior nursing students showed significantly more features of psychoticism ($p=0.029$) as compared to junior students (Table 3).

There was a significant negative correlation between the stress level and extroversion ($r=-0.277$, $p<0.05$), neuroticism ($r = -0.024$, $p<0.05$), lie ($r=-0.244$, $p<0.05$) and psychoticism ($r = -0.502$, $p<0.05$) personality domain. Students with these personality dimensions therefore experienced lesser academic stress as compared to their counterparts. Further, in terms of coping styles, extroversion dimension shows positive relation with support seeking ($r=0.397$, $p<0.05$), avoiding ($r=0.364$, $p<0.05$), and ventilation ($r=0.440$, $p<0.05$) of negative feelings. Substance abuse coping style shows negative correlation with extraversion ($r=-0.353$, $p<0.05$) indicating that students with extraversion adopt more healthy coping styles and less of negative styles.

Similarly, neuroticism dimension shows negative correlation with avoiding ($r=-0.334$, $p<0.05$) and ventilation ($r=-0.190$, $p<0.05$) coping styles indicate that neuroticism dimension personality students use less health coping styles as compared to extroversion. In contrast, conflicting trends were noticed for students with psychoticism personality dimensions which shows a negative correlation with support seeking (-0.186 , $p<0.05$), avoiding (-0.267 , $p<0.05$), and venting (-0.206 , $p<0.05$) coping styles. Findings also suggested that students with lie personality dimension use more of behavioural disengagement ($r=0.462$, $p<0.05$) coping styles (Table 4).

Discussion

High levels of stress in nursing are largely overlooked. Young generation start attracting towards nursing due to many job opportunities and secure future. Descriptive analysis shows that students progressively develop more of psychoticism personality traits in higher class. Students reported more stressor from new environment and use of active and health coping styles to adopt in new place. These findings are in line with those of Kumar & Nancy (2011), which revealed that students use more of active and health

Table 2: Descriptive statistics of the variables (n=114)

Scale	Mean±SD	Mean % score
Personality Dimension		
Extroversion	16.93±1.34	-
Neuroticism	16.70±1.14	-
Lie	17.41±1.35	-
Psychoticism	17.63±1.21	-
Academic Stress Scale		
Personal factors	18.33±5.06	45.75
Academic factors	16.30±4.93	40.75
Environmental factors	19.05±5.18	47.63
Other factors	16.48±4.27	47.09
BREF-COPE		
Active coping	23.00±4.49	70.00
Support seeking	9.73±2.80	60.81
Avoidant coping	8.83±1.80	55.18
Expressing negative feelings	9.40±2.70	58.75
Behavioural disengagement	13.10±3.25	54.58
Substance abuse	2.49±1.30	31.12

Table 3: Class, personality and academic stress of BSc students (n=114)

Sub Scale	Class	Mean±SD	p-value
Personal factors	I Year	20.10±5.23	0.015*
	II Year	18.85±5.01	
	III Year	18.37±5.17	
	IV Year	15.74±3.89	
Academic factors	I Year	17.81±5.52	0.015*
	II Year	17.07±5.23	
	III Year	16.24±4.98	
	IV Year	13.85±2.64	
Environmental factors	I Year	20.61±5.05	0.004*
	II Year	20.33±4.78	
	III Year	18.86±5.45	
	IV Year	16.19±4.39	
Other related factors	I Year	16.68±3.78	0.757
	II Year	15.70±4.53	
	III Year	16.83±4.32	
	IV Year	16.67±4.61	
Psychoticism	I Year	16.93±1.34	0.029*
	II Year	16.70±1.14	
	III Year	17.41±1.35	
	IV Year	17.63±1.21	

*Significant at p-value <0.05 level

coping strategies as compared to negative coping styles. These findings are also supported by Sayedfatemin et al (2007), which reported that seeking social and professional support, relaxing, seeking diversion and avoiding are preferred coping styles among nursing students. Similar findings related to stressors and coping styles were reported by Niknami (2015).

Our findings show that personality domains have negative correlation with academic stress. However,

psychoticism personality domains also revealed a significant association as the students advanced in higher classes.

These findings are consistent with those of Velayudhan et al (2016) and Eva E et al (2015) in which trends of influence of personality traits were noticed on stress. Similarly, Abaszadeh et al (2010) reported that neurotic and extrovert personality domains raise the chances of developing stress and risk of related physical and psychological symptoms. Similarly, Estaburg et al (1994) reported that burnout had close association with extroversion and neuroticism personality traits among medical students. However, the causality of relation was uncertain in same survey. Kumar & Nancy (2011) found that academic stress in different domains are higher in initial classes and gradually students are able to handle it as they advance to higher studies. Further, this study reported that students have more psychoticism traits as they advanced to higher studies, this trend was supported by Mercilline & Ravindran (2013) in which a significant difference was observed for psychoticism traits between first and fourth year nursing students. Present study findings also in consensus with the studies of Belsi et al (2011), and Kikuchi et al (1999), which reported higher neuroticism in first year students and average extraversion as comparison to final year nursing students.

Present study showed a positive relation between coping styles and extroversion personality dimensions. There is evidence from literature that extraversion and positive coping styles have been correlated in response to handle stressful situations (Sayedfatemi et al, 2007). Mirnics et al (2013) reported agreeableness and conscientiousness to be strongly associated with positive appraisal and planning and self-regulation. Also, neuroticism and psychoticism dimensions were related with use of more negative relation with positive coping styles. These findings are in line with the work by Velayudhan (2016) and Supe (1998), suggesting that students with neuroticism show more use of negative coping styles compared to their counterparts.

Implications

Stress is an ongoing problem among nursing students. There is need to terminate high level of stress to have a positive impact on development of all round personality traits and adjustment styles. For an efficient and effective quality care nurse administrators and supervisors should trace the sources of academic stress and timely resolution.

Conclusion

Academic stress is pervasive among nursing students; it is precipitated by many sources. Chronic stress has

Table 4: Correlation of personality dimension with stress and adjustment styles (n=114)

Variables	Extroversion	Neuroticism	Lie	Psychoticism
Academic stress	-0.277**	-0.424**	-0.244**	-0.502**
Active coping	0.158	0.476**	0.107	0.141
Support seeking	0.397**	-0.135	-0.060	-0.186**
Avoiding	0.364**	-0.334**	-0.023	-0.267**
Ventilation	0.440**	-0.190**	-0.160	-0.206**
Behavioural disengagement	0.005	0.227**	0.462**	0.131
Substance abuse	-0.353**	0.069	0.098	0.024

Note:**Correlation is significant at the 0.01 level (2-tailed);

* Correlation is significant at the 0.05 level (2-tailed)

direct impacts on overall personality development and use of adjustment styles. The year of nursing students also had direct relation with different sources of academic stress and development of more psychoticism traits.

Recommendations

Nurse administrators or managers can help the students by organising mentorship programme and providing necessary support to develop positive coping styles in order to control stress-induced psycho-pathology and deviation in personality. Awareness on healthy coping styles in adjustment could also be a milestone to curb maladjustment and use of negative coping styles.

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