



**Short Report:**

**Coping Ability of Medical and Nursing Students: A Cause of Concern**

**Ramkumar S**, Resident, MS Ramaiah Hospital, Bangalore,

**Rakshita C**, Resident, MS Ramaiah Hospital, Bangalore

**Elizabeth J**, Department of Physiology, MS Ramaiah Medical College, Bangalore

**Joji Mathews**, Department of Cardiology, MS Ramaiah Memorial Hospital, Bangalore,

**Prakash VS**, Department of Cardiology, MS Ramaiah Memorial Hospital, Bangalore

**Rajeev Sharma**, Department of Physiology, MS Ramaiah Medical College, Bangalore

**Address for Correspondence:**

**Dr. Ramkumar S,**

No.1902, 13<sup>th</sup> Cross,

4<sup>th</sup> Main, C Block, Sahakarnagar,

Bangalore – 560092, India.

**E-mail:** ramkumar.chubby@gmail.com

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**Abstract: Background:** Medical students today are subject to a variety of stress; academic, social, emotional or stress in the form of affliction of health during their stay at medical school. The physiological response to these depends on various factors including their inherent coping abilities. This study was designed to examine the coping ability of medical and nursing students at the time of admission to medical school. **Materials and Methods:** 42 medical and 34 nursing students volunteered for the study. They were administered the BAI questionnaire and classified as good and poor adjusters based on their score. **Results:** The study revealed an unsatisfactory overall coping ability to be prevalent among medical and nursing students. **Conclusion:** This study showed that there is a need for orientation and counselling of medical and nursing students at the start of college.

**Key Words:** Coping ability; Counselling

**Introduction:**

Studies from both the West and Asia have reported that medical school is highly stressful particularly for those who are beginning their medical education.<sup>1,4</sup> They have also established links between chronic life stress and cardiovascular disease.<sup>5</sup> Psychological stress is a risk factor for coronary artery disease (CAD)<sup>5</sup> and hypertension.<sup>6</sup> Workers in the field of behavioural science have carried out extensive research on stress and its outcomes in the academic circle and have inferred that the topic needed more attention.<sup>7-11</sup> According to Sender *et al*, the first years at university represent a major challenge for medical students. They are under pressure to perform according to the standards of their selected professional career and, at the same time, initiate the liberation process from parental control. This process of emotional detachment and change of social roles is a source of psychological distress, mainly because both the family and academic environment are underpinned by the model of social competition that predominates in professional activity. As this process of change evolves, few students show signs of physical or psychological suffering.<sup>12</sup> The available literature on psychological distress in medical students has largely ignored the influence of personality traits that might predispose some students to psychological maladjustment during training.<sup>12</sup> According to Srivastava *et al*, students with good psychological support have less adjustment problems.<sup>13</sup> Warbah *et al* showed

psychiatric morbidity to be associated with introversion, neuroticism, and poor adjustment on all the four domains on the Bell's Adjustment Inventory in nursing students.<sup>14</sup> Academic workload, examinations, and assignments are all sources of stress for student nurses.<sup>15-17</sup> An Irish study focusing on measuring various stressors, found examinations, theory, assignments, and workload and classroom hours to be significant stressors.<sup>18</sup> Ofori showed that academic work provokes a greater challenge to younger student nurses owing possibly to their limited coping ability.<sup>19</sup> Thus it is evident that medical and nursing students are subject to stress during their entry into and stay in medical school. Individuals may vary in response to the same stress in different ways. The coping ability of an individual may influence the response to the stress. Hence, this study was done to evaluate the inherent coping ability of students at the time of their admission into college.

**Materials and Methods:**

The study was conducted at M S Ramaiah Medical College, Bangalore. A total of 76 healthy (42 medical, 34 nursing) students admitted into first year MBBS and nursing courses during the academic year 2007-2008 participated in the study. They were included after having obtained a written informed consent to a protocol approved by the ethical review board of the institution. The study was conducted a week after the completion of the admission procedure to the institution. The weight, height and blood pressure were also recorded simultaneously. Weight was taken on a weighing scale with standard minimum clothing to the nearest 0.5 kg. Height was measured on a vertical scale with heels, buttocks, occiput against the wall and head in Frankfurt plane (A standard position of reference in which the upper border of the external auditory meatus is on a horizontal plane with the lower border of the eye), to the nearest 0.5 cm. Body Mass Index (BMI) was computed as weight (in kg)/height<sup>2</sup> (in m). WHO grading of BMI<sup>20,21</sup> was used for determination of relative proportion of underweight and overweight. Each student was administered the Bell's Adjustment Inventory (BAI Questionnaire). The BAI questionnaire is a psychometric analysis tool designed to assess the coping abilities of an individual in four aspects – Home, Health, Emotional, and Social. A total score of 44 was used to classify individuals as having satisfactory or unsatisfactory coping ability, a higher

score indicating poor ability. All the volunteers were administered the questionnaire simultaneously and were given a standard 30 minutes to fill the questionnaire. A score of 11 or greater for coping ability at home, social coping ability and emotional coping ability indicated an unsatisfactory response. Statistical software namely SPSS 15.0, Stata 8.0, MedCalc 9.0.1 and Systat 11.0 were used for the analysis of the data. Descriptive statistical analysis was used to compute the frequency, percentage, mean, SD etc.

#### Results:

The results of the study are shown in the tables below:

Table 1: Distribution of BAI – Total Score						
BAI-total score	Medical students		Nursing students		Combined	
	No	%	No	%	No	%
Good-Excellent	1	2.4	0	0.0	1	1.3
Average	16	38.1	13	38.2	29	38.2
Unsatisfactory-Very unsatisfactory	25	59.5	21	61.8	46	60.5
Total	42	100.0	34	100.0	76	100.0

Table 2: Distribution of BAI – Social Component Score						
BAI-Social	Medical students		Nursing students		Combined	
	No	%	No	%	No	%
Aggressive	10	23.8	3	8.8	13	17.1
Average	18	42.9	22	64.7	40	52.6
Retiring	14	33.3	9	26.5	23	30.3
Total	42	100.0	34	100.0	76	100.0

Table 3: Distribution of BAI – Emotional Component Score						
BAI-Emotional	Medical students		Nursing students		Combined	
	No	%	No	%	No	%
Good-Excellent	4	9.5	0	0.0	4	5.3
Average	12	28.6	8	23.5	20	26.3
Unsatisfactory-Very unsatisfactory	26	61.9	26	76.5	52	68.4
Total	42	100.0	34	100.0	76	100.0

Table 4: Distribution of BAI – Health Component Score						
BAI-Health	Medical students		Nursing students		Combined	
	No	%	No	%	No	%
Good-Excellent	3	7.1	4	11.8	7	9.2
Average	13	30.9	16	47.1	29	38.2
Unsatisfactory-Very unsatisfactory	26	61.9	14	41.2	40	52.6
Total	42	100.0	34	100.0	76	100.0

Table 5: Distribution of BAI – Home Component Score						
BAI Home Score	Medical students		Nursing students		Combined	
	No	%	No	%	No	%
Good-Excellent	11	26.2	9	26.5	20	26.3
Average	17	40.5	15	44.2	32	42.1
Unsatisfactory-Very unsatisfactory	14	33.3	10	29.4	24	31.6
Total	42	100.0	34	100.0	76	100.0

#### Discussion:

The study aimed to analyze the inherent coping ability of an individual. Analysis of the individual BAI questionnaire components showed that majority of both the medical students (40.5%) and the nursing students (44.2%) have an average home environment. While 61.9% of medical students showed unsatisfactory health coping abilities, 47.2% of nursing students showed similar results. Emotional coping ability was found to be unsatisfactory in 61.9% of medical students, while nursing students showed a similar pattern, with higher number (76.5%). 42.9% of medical students and 64.7% of nursing students showed average social coping ability. Overall, 59.5% of medical students and 61.8% of nursing students had an unsatisfactory overall BAI score.

The coping ability of an individual being an inherent quality may influence an individual's response to stress. In the case of medical students who have just been admitted to medical school, dissection of human bodies in the department of anatomy and physiology practical could be stressors. The sudden requirement to read voluminous study material with entire range of newer terminologies and new pattern of study, being very different from their pattern at the pre-university college level may also be stressful. The nurses in addition to similar problems have a further larger problem with multiple subjects in the first year and the stress of maintaining extreme discipline in both hostel and classes. In addition to these, there is evidence that finance is a major stressor among nursing students.<sup>18,22</sup> Therefore, the individual's coping ability at home may play a role to combat the same. When admitted to medical or nursing school for the first time, all students are exposed new colleagues and faculty. Their social and emotional coping abilities may govern the time they take to adjust to the new atmosphere. In addition to the above factors, the effect of parental and peer pressure to perform cannot be ignored. Our study also showed that females tend to have a poorer coping ability to perceived stress. Compounded by the higher level of perceived stress,<sup>22</sup> females may be more prone for morbidities as a result of stress.

Thus, coping ability of an individual becomes very important in how they respond to the stress. Studies have also shown psychological distress, poor adjustment and coping to result in poor academic performance among students. In a minority of students this can result in significant psychiatric morbidity and even withdrawal from the course.<sup>14</sup> Thus, our study showed that a majority of both nursing and medical students have an unsatisfactory coping ability. These need to be looked into at the time of their admission into medical school and the issues be addressed to improve academic performance, to prevent and minimize psychiatric and other morbidities further ahead in their career.

#### Conclusion:

The study revealed an unsatisfactory overall coping ability to be prevalent among medical and nursing students.

#### Limitations of the Study:

The sample size of the study was too small since only students who volunteered were sampled for the study. Therefore, the authors recommend that future research should use larger sample size from other institutions to validate these findings. The findings will help the individual students, lecturers, career and counselling centres, and the University administration to put in place mechanisms that may moderate the effects of stress on students.

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