

## A Study of Factors Causing Stress among First Year Medical Students in a Medical College in Northeastern India

Rajkumar Arbind Singh

(Department of Physiology, Jawaharlal Nehru Institute of Medical Sciences, Manipur)

Corresponding Author: Rajkumar Arbind Singh

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**Abstract:** Medical Education is inherently stressful and demanding. First year medical students as they enter an entirely different world of medical school for first time provide a perfect platform for inducing stress. This study was undertaken to explore the various factors which may be the causes of perceived stress among the first year medical students of a medical college in north-eastern India. A predesigned, semi-structured questionnaire with 23 questions was prepared and 76 students were analysed. Out of the 76 students, 55 (72.36%) reported high levels of stress of which 27 (35.5%) were males and 28 (36.84%) were females. The main causes of stress in our study were found to be academically related, the vast syllabus of the first year MBBS, difficulty in covering portions daily, getting less time for revision etc

**Key words:** Stress, medical student, Medical education, Academic factors

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Date of Submission: 14-08-2019

Date of Acceptance: 29-08-2019

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### I. Introduction

Stress is often defined as a feeling of being overwhelmed, worried or rundown. Stress can affect people of all ages, genders and circumstances and can lead to both physical and psychological health issues. By definition Stress is any "uncomfortable emotional experience accompanied by predictable biochemical, physiological and behavioral changes."<sup>1</sup>

Medical Education is inherently stressful and demanding. Studies have proved that compared to the general population, medical students are the most distressed students.<sup>2</sup> An optimal level of stress can enhance learning, however excessive stress can reduce student's self-esteem and may affect academic achievement and personal or professional development.<sup>3</sup>

In our country Medical education is highly stressful compared to other professional courses. The vast syllabus, peer competition for academic performance, continuous evaluation and long duration of training are common precipitating factors. First year medical students as they enter an entirely different world of medical school for first time provide a perfect platform for inducing stress. In the first year students study Anatomy, Physiology and Biochemistry for which they are assessed at the end of the year. During the period of one year they are subjected to series of written and practical tests to ensure their competency. The scores in these tests will be taken into account for the final exams, if they fail to maintain minimum average scores in these tests, they do not become eligible to appear for final examinations.

In this context and due to the scarcity of studies related to factors causing stress in 1<sup>st</sup> year medical students in this part of the country this study was undertaken to explore the various factors which may be the causes of perceived stress among the first year medical students of a medical college in north-eastern India.

### II. Methods

The study was an institution based, cross-sectional study among the 100 first year MBBS students of Jawaharlal Nehru Medical College Manipur. Ethical clearance from the institutional ethical committee was taken. Consent from the students who were willing to participate in the study was taken and the methodology and purpose of the study was well explained to them.

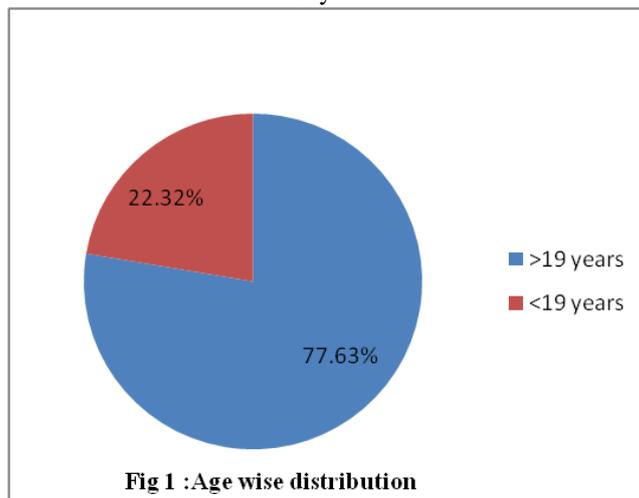
A predesigned, semi-structured questionnaire with 23 questions was prepared. The questionnaire consisted of two parts. The first part comprised of demographic information of the students such as age, sex and residence. The second part included questions about the causative factors on stress. The answers were graded on a 5 point Likert scale ranging from strongly disagree =0, disagree=1, neither disagree or agree =2, agree=3, strongly agree=4.

Students were assured about the confidentiality of their details, and clarification was given regarding doubts about the questions. Statistical Analysis was done using SPSS version 16.

**III. Results**

Among the 100 first year medical students, 76 (76%) completed the questionnaire, of these 41(53.9%) were male and 35(46.05%) were females.

**Figure 1.** shows that 59(77.63%) students were aged 19 years and above and 17(22.32%)students were younger than 19 years old.



**Table1.** Gender Wise Distribution

	Stress	No.Stress	P value
Gender	Yes	No	0.1692
Males, N(%)	27 (35.5%)	14	
Females, N(%)	28(36.8%)	7	

Out of the 76 students, 55(72.36%) reported high levels of stress of which 27(35.5%) were males and 28(36.84%) were females indicating that females were little bit more stressed than males which however was not statistically significant.

**Table 2:** Factors contributing to stress

Cause	N (%)
Vast syllabus	46(84.21)
Difficulty in covering portions daily	39(72.36)
Less time for revision	43(78.94)
Not getting appropriate recognition to work done	22 (40)
Tiredness due to tight schedule	45(81.81)
Competition with fellow students	43(78.18)

Table 2 shows that among the 55 students who revealed stress, Vast syllabus was a major cause of stress in 46(84.21%),difficulty in covering portions daily in 39(72.36%), less time for revision in 43(78.94%),tiredness due to tight schedule in 45(81.81%),not getting appropriate recognition to work done in 22 (40%) and competition with fellow students in43(78.18%) students.

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#### **IV. Discussion**

This study showed that stress is common among first year medical students with a prevalence of 72.36% (55) among our study group. The finding is similar to Sreedevi A *et al*<sup>4</sup> where 78.19% experienced stress. However the percentage is lower than the study by Solanky P *et al*<sup>5</sup> which found that 96.8% of the medical students had stress. The study found negligible difference in stress among male and female students which was similar to study by Heinen I *et al*<sup>6</sup> but in contrast to other studies by Somnath TS *et al*<sup>7</sup>

The main causes of stress in our study were found to be academically related, the vast syllabus of the first year MBBS, difficulty in covering portions daily, getting less time for revision etc. This is similar to the other studies by Sreedevi A<sup>4</sup>, Somnath<sup>7</sup>

First year medical students are entering an entirely different world of medical education for the first time, it is a time where many personally relevant changes take place within student's lives like leaving home and living on their own for the first time, establishing new relationships, habituation to the processes and examinations at medical school etc. The high levels of stress as found in our study calls for early intervention strategies so that students entering the medical school for the first time can cope with the pressure induced by the medical education.

#### **V. Conclusion**

Medical education is highly competitive and stressful and more so particularly in first year medical students. This calls for early interventions like proper guidance and counselling by the faculties to reduce the problems faced by the students.

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Rajkumar Arbind Singh. "A Study of Factors Causing Stress among First Year Medical Students in a Medical College in Northeastern India." *IOSR Journal of Dental and Medical Sciences (IOSR-JDMS)*, vol. 18, no. 8, 2019, pp 17-19.