

# STRESS AND BURNOUT IN UNDERGRADUATE MEDICAL STUDENTS

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Stress is an imbalance between a person and environmental conditions need to survive and defined as “a particular relationship between the person and the environment that is appraised by the person as taxing or exceeding his or her resources and endangering his or her well-being”.<sup>1</sup> Stress in medical students has been recognized for a long time. Many studies were done to explore the causes, consequences and solutions. Presence of stress in undergraduate medical students has been reported from different countries throughout the world. They suffer from both physical and psychological stress and both are interrelated. Different studies have shown that psychological stress in medical students is higher when compared to the general population.<sup>2</sup> Students with stress have decreased attention, reduced concentration, and temptation to cheat on exams. Stress levels have a strong relationship with physical condition.<sup>3</sup> Nausea, diarrhea or constipation, insomnia, fatigue, skin diseases e.g. acne, dermatitis, and psoriasis was the various physical conditions associated with stress.

There are three most relevant issues in stress development in medical students. They are required to learn lot of new information in a short period of time before examination and evaluations. Therefore, they have little to no time to review what they have learned.<sup>4</sup> Personal stressors include family, friend and relationship issues. Financial issues are also common. The National Academy of Medicine defines burnout as a “syndrome characterized by a high degree of emotional exhaustion, depersonalization, and a low sense of personal accomplishment.”<sup>5</sup> Stress and burnout

progressively develop and increase over the course of medical education. During both preclinical and clinical years, medical students are supposed to take responsibilities of patients and learn an immense amount of facts and concepts with a limited period of time and memory, which makes a stressful environment.<sup>6</sup> Medical curriculum, is designed to graduate a student knowledgeable, skillful, professional, and competent doctors. The intensive medical curriculum may threaten students’ mental and physical health which adversely impact academic performance and contribute to student substance abuse and academic dishonesty.<sup>7</sup> A meta-analysis has shown that nearly one-third of medical students reported depressive symptoms or depression.<sup>8</sup> Another study found increased rates of anxiety and depression in the 3rd year of medical school.<sup>9</sup> Some degree of stress is a normal part of medical education and medical students experience substantial stress from the beginning of their study process.<sup>10</sup> The sources of stress for medical students vary by year in training. Researchers differ in their opinion in which course of studying medicine the stress is highest.<sup>11</sup> Type of psychological problems found in the study was depression, anxiety, panic attack, phone addiction, inferiority complex, and Illusion. Research had reported that medical students develop depressive symptoms due to work overload, several examinations and competitive situation.<sup>12</sup>

One study was conducted among third and fifth-year medical students of Dhaka Medical College to determine the prevalence of mental illness and the sources of their stress. Students

reported their mental health conditions in questionnaires. Most of the studied students reported having some mental health problems. The physical health of the students was average in the majority of the cases. Students were suffering from anxiety, depression and phone addiction. Depression was more in 3rd-year students in comparison to 5th-year students. On the contrary, anxiety was more among 5th-year students. No significant association of mental health problems with electronic devices was found.<sup>13</sup> Early diagnosis and effective psychological services are needed to prevent possible future consequences.

The majority of the articles in the literature about medical student stress focus on sources of stress. Programs should be taken to develop support systems to help students addressing their challenges, including confidential resources for treatment of depression.<sup>14</sup>

Mentorship program with the view of close working relationship with teacher and students is one of the good options. This help to identify the physical and psychological problems of the particular student earlier. Students also can express their problems easily. The mentors, advisers and other faculty members who notice the signs of stress in a student need to approach the student in a non-threatening, non-judgmental way to recognize and handle their stress. On this regard teacher- student relationship must be familiar. Medical school/ college should provide easily accessible services by psychologists to the mentally ill students as well as substance abuses.

Counseling can facilitate exploration of personal issues and other events. Effective, accessible counseling services to the students should be provided by the college.<sup>15</sup>

Advocacy programs to educate students about various personal and professional stressors experienced during training and inform them how to access available resources to rid of them.

Some researchers call for curricular changes which should not create extra burden to the students.

Extracurricular activities have a role to reduce the stress and burnout and these are highly

recommended. Extracurricular activities were: physical exercise, music, reading, and social activities etc. Extracurricular activities can reduce anxiety, stress, and burnout and their effects on mental and physical health.<sup>16</sup> Music-related activities may be a cost-effective and enjoyable strategy to improve empathy and compassion. They can create a positive milieu for preclinical medical students and have significant positive effects on mood in terms of anxiety, depression, and perceived stress.<sup>17</sup>

Method that help in reducing the incidence of stress and burnout by promoting strategies those focus on personal engagement, extracurricular activities, positive reinterpretation and expression of emotion, student-led mentorship programs, evaluation systems, career counseling and life coaching should be adopted.<sup>18</sup>

#### **Conclusion:**

Medical education is a long emotionally taxing journey. A substantial proportion of undergraduate medical students suffer from stress and burnout. Medical educators should be conscious about this. Successful prevention of stress and burnout of students provide wellness in future doctor.

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