



Assessment of perceived stress among undergraduate medical students, Nanded, Maharashtra

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Sir,

High levels of stress may have a negative effect on both cognitive functioning and comprehension of medical students [1]. The potential negative effects of emotional distress on medical students include impairment of functioning in class-room performance and clinical practice, stress induced disorders and deteriorating performance. Perceived medical stress has also been linked to current mental distress and to forthcoming health problems [2]. In view of above context, such type of study was lacking in Marathwada region of Maharashtra so we planned to assess perceived stress among undergraduate medical students.

This cross-sectional study was carried out during February to April 2013 among all undergraduate medical students at Dr. Shankarrao Chavan Government Medical College, Nanded. At the time of study, there were total 5 batches, i.e. 4 batches of second to fourth year (each with 50 medical students) and one batch of first year with 100 students (Total 300 students). The approval of the Institutional Ethics Committee was sought before commencement of the study. The self administered questionnaire of Perceived Stress Scale (PSS)-10 is validated and reliable instrument to measure the global level of perceived stress which was adopted from previously published study of AL-Dubai et al [3]. After explaining the objective of the study, the informed consent was obtained from the students. The data were analysed by using Microsoft Excel by maintaining confidentiality. The PSS-10 assesses perceived stressful experiences or stress responses over the previous month with a 5-point Likert scale (0=never and 4=very often). PSS-10 scores are obtained by reversing the responses (e.g. 0=4,1=3,2=2,3=1 and 4=0) to the 4 positively stated items (items 4,5,7 and 8) and then summing across all scale items. The scores range from 0-40, with higher scores indicating greater stress [3].

Out of total 300 students, 3 students did not give informed consent and 59 students could not be contacted even after three visits, they were excluded from the study. Thus 238 students were included in the study. The response rate was 79.33%. In the present study, the mean perceived stress score of all 238 students was 17.53±6.21. The mean perceived stress scores were higher in the studies by Shah M et al (30.84±7.01), Al-Dubai SAR et al [3] (18.9±4.8), Brahmabhatt KR et al [4] (27.5±8.1) and Chakraborti A et al [5] (18.26±6.37).

Brahmbhatt KR et al [4] in his study concluded that mean

Table : 1. Responses of medical students to various components of perceived stress scale

Statement	Never	Almost Never	Sometimes	Fairly Often	Very Often
1) In the last month, how often have you been upset because of something that happened unexpectedly?	40(16.8)	40(16.8)	106(44.5)	29(12.2)	23(9.7)
2) In the last month, how often have you felt that you were unable to control the important things in your life?	49(20.6)	56(23.5)	73(30.7)	39(16.4)	21(8.8)
3) In the last month, how often have you felt nervous and "stressed"?	22(9.2)	34(14.3)	109(45.8)	37(15.5)	36(15.2)
4) In the last month, how often have you felt confident about your ability to handle your personal problems?	9(3.8)	15(6.3)	56(23.5)	81(34.1)	77(32.3)
5) In the last month, how often have you felt that things were going your way?	24(10.1)	25(10.5)	80(33.6)	64(26.9)	45(18.9)
6) In the last month, how often have you found that you could not cope with all the things that you had to do?	39(16.4)	50(21.1)	95(39.9)	37(15.5)	17(7.1)
7) In the last month, how often have you been able to control irritations in your life?	14(5.9)	22(9.2)	74(31.1)	82(34.5)	46(19.3)
8) In the last month, how often have you felt that you were on top of things?	43(18.1)	45(18.9)	85(35.7)	46(19.3)	19(8.0)
9) In the last month, how often have you been angered because of things that were outside of your control?	24(10.1)	48(20.1)	88(37.0)	50(21.1)	28(11.7)
10) In the last month, how often have you felt difficulties piling up so high that you could not overcome them?	71(29.8)	50(21.1)	76(31.9)	21(8.8)	20(8.4)

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perceived stress scores of male (29 ± 7.6) & female (30.1 ± 7.2) first year medical students and male (25.3 ± 10.3) & female (26.9 ± 7) second year students were higher in comparison to present study because in our study, the mean perceived stress scores of male & female first year medical students were 16.90 ± 5.81 and 18.87 ± 5.68 respectively and male & female second year students as 19.06 ± 6.06 and 17.00 ± 7.35 respectively.

In the present study, the most of students were reported their response in 'sometimes' category to various components of PSS-10 like 44.5% for upset because of something that happened unexpectedly, 30.7% for unable to control the important things, 45.8% for stressed, 33.6% for things were going your way, 39.9% for could not cope up with all the things, 35.7% for you were on top of things, 37% for angered, 31.9% for felt difficulties were piling up so high that they could not overcome them. Only regarding two components, students were reported their response in 'fairly often' category like 34.1% felt confident about ability to handle personal problems and 34.5% for able to control irritations in life [Table 1]. Al-Dubai SAR et al [3] reported that all participants were reported in 'sometimes' category. Shah M et al [2] showed in their study, most of the students reported in 'sometimes' category except two components (felt stressed and on top of things) in 'often' category and one component (things have to accomplish) in 'very often' category. In Brahmbhatt KR et al [4] study, maximum students reported in 'sometimes' category except two components (dealt successfully with day to day problems and ability to handle personal problems) in 'almost never' category and one component (things have to accomplish) in 'fairly often' category.

High levels of perceived stress were observed among study participants. It is an urgent need to identify sources of stress among them and to teach to adopt various stress management techniques to cope with stress

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Conflict of Interest: Nil
Source of Support: None

How to Cite this Article

Domple V K, Doibale M K, Khadilkar H A, Aswar N R, Gadekar R D, Jain S R. Assessment of perceived stress among undergraduate medical students, Nanded, Maharashtra. *Indian J Med Sci* 2017 April - June; 69 (2):42-43