

## **A Randomized control trial in reducing the stress level of Medical students: Homoeopathy and Meditation versus Placebo and Meditation**

**Mita Gharte, Ravind Yadav, Shahnawaz Shaikh, Sachin Yadav**

### **Abstract**

#### **Background:**

Our lifestyle has become very busy today. As a result, more and more people are exhibiting symptoms of stress and anxiety in general and college students are known to experience massive amounts of stress in particular. Studies shows that India has one of the highest rates of suicide between ages of 15 to 29. Thus the magnitude of problem today's world is serious, which made us to think over it. This study aims at helping the medical student to overcome their stress level with the help of homoeopathic medicines and relaxation techniques like meditation. **Objective:** To compare the effect of homoeopathic medicine versus placebo in reduction of stress level in medicalstudents receiving meditation.

**Materials and Methods:** A randomize control trial was conducted at Motiwala homoeopathic medical college and hospital, Nashik Standard process stress assess scale was used to measure stress level before and after treatment.48 students were recruited for the study. Randomization was done and study group received Homoeopathic medicine and control group was given placebo. Both the groups received meditation together simultaneously. Improvement was recorded after 4 months of treatment.

**Result:** The mean score before and after in study group were 70.37 and 53.30 and in control group 69.33 and 54.66 respectively.

**Conclusion:** The study concludes that the Homeopathic medicines when used along with Meditation will effectively reduces the stress levels in medical students as compared to placebo combined with meditation.

**Keywords:** Stress, Homoeopathic medicine, Meditation, medical students, Standard process stress access scale, Randomized control trial.

#### **Introduction:**

Our world and lifestyle have become very busy today. As a result, more and more people are encountering symptoms of severe stress and anxiety. Stress is difficult to define because researchers approach it in different ways. Few use the term stress to refer to circumstances that threaten wellbeing or to refer to the response people have to threatening circumstances. Stress is the emotional and physical strain caused by our response to pressure from the outside world <sup>(1)</sup>.

College students are known to experience massive amounts of stress mostly revolving around examinations. It is shown in many studies that students suffer with extreme levels of stress and this can be detrimental to their health. College students experience many levels of stress throughout their educational career. The management of stress during this period of their lives is quite difficult. Students tend to resort to substance abuse, poor behavior and eventually an overall lack of care for school. One of the main factors of academic stress results from exams. According to the article, "Emotional intelligence,

and exam-related stress in Canadian undergraduate students,” written by Elizabeth Austin, et.al stress can cause a decline in academic performance throughout the semester and there is a greater level of stress in pre-exam periods <sup>(2)</sup>.

Stress in medical students is not uncommon and is process orientated. Although minimal amount of stress is desirable in everyday life and is necessary to add a spark in a healthy competitive spirit, the undue stress has undesirable impact on students and also on one’s mental and physical health. Medical colleges do have a stressful environment that often exerts a negative effect on the academic performance, physical health and psychological wellbeing of the students <sup>(3)</sup>.

India has one of the highest rates of suicides among people aged between 15 and 29. Although the reasons are myriad, but failure in examination, unemployment, and depression are some the reasons why people put their life at risk. Fear of failure to do well in studies is causing anxiety among students which has substantial negative effects on their academic and social success. In a recent survey, two-third (66%) students reported that their parents pressurize them for better academic performance, and the pressure from non-graduate parents was more compared to parents those were graduates and post graduates<sup>(4)</sup>.

The above causes, reasons, statistics and the fate of stress made us think over the problem and this study is a help for the medical student to overcome their stress level with the help of homoeopathic medicines and relaxation techniques like meditation and help them to avoid over taxation. Very few studies documenting the levels of stress has been done in Indian medical students.

#### **Materials and methods:**

this was a randomized, controlled comparative trial in reducing the stress level of Medical students conducted by Motiwala Homoeopathic Medical College and Hospital, Nashik for 4 months. In the study 302 medical students were screened using questionnaire of Standard Process Stress Assess scale. 48 students in the age group of 15 to 30 years of both the sexes, scoring 60 and above were included in the study. Student taking hypertensive medicine, sleep medication, those already practicing daily meditation and taking any other medication have been excluded. Appropriate coding was done to identify study and control group participants. Odd numbers like 01, 03, 05 received homoeopathic medicine and meditation which constituted study group. Even numbers like 02, 04, 06 received placebo and meditation which constituted control group. Meditation sessions were conducted by authorized yoga teacher.

#### **Intervention:**

The study group participants were given Homoeopathic Medicine after considering the reportorial totality. The control group participants were given placebo for the same period as study group. Meditation sessions were conducted for both the groups together simultaneously.

#### **Outcome Measure:**

Standard Process Stress Assess scale questionnaire comprising of 20 questions for assessment of stress was used during screening. The scale was used again at the end of study to measure the improvement in the level of stress among the 48 participants from both the study and control groups.

#### **Result:**

participants from study group who received Homoeopathic medicines along with meditation improved. Fifteen participants from control group who received placebo along with meditation improved. Mean

stress score value before treatment in subject group receiving homoeopathic medicine with meditation was 70.37 and mean stress score value after treatment was 53.30 [Figure 2]. Mean stress score value before treatment in subject receiving placebo with meditation was 69.33 and mean stress score value after treatment was 54.66 [Figure 3].

**Discussion:**

In this study 302 Medical students were screened for stress Assessment, using standard process stress assess Scale. A questionnaire comprising of twenty questions were given to each student screened. According to scale applied stress levels between 20 and 59 are fairly well managed and are a healthy response of the body. Stress levels 60 and above interfere with daily activities frequently and leaving one depleted. Therefore 48 students with score sixty and above were included for the study. Of the 48 participants 43 were in the score of 60 and 79 and 5 participants were in the score of 80 and above. The study sample comprised of 32 females (67%) and 16 males (33%) [Fig. 1]. The physical ailment associated with the stress were headache(31), hyperacidity(9), eye pain(6), acne(5), irregular menses(5), abdominal pain( 2), vertigo(2), hair fall(2). The participants from study group who were treated with Homoeopathic Medicines, Pulsatilla (4), Natrum Muriaticum (3), Lachesis(2), calcarea Phosphorica(2) and others, according to reportorial totality and the symptom correspondence with Homoeopathic Materia Medica responded well as compare to the control group who received placebo. This indicates benefit of Homoeopathic treatment in reducing the stress.

Fig1: Pie chart representing male female ratio:

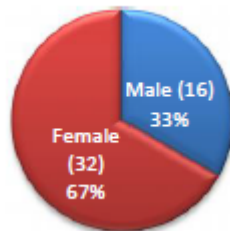


Figure 2. Bar graph representing mean score before & mean score after treatment of study group.

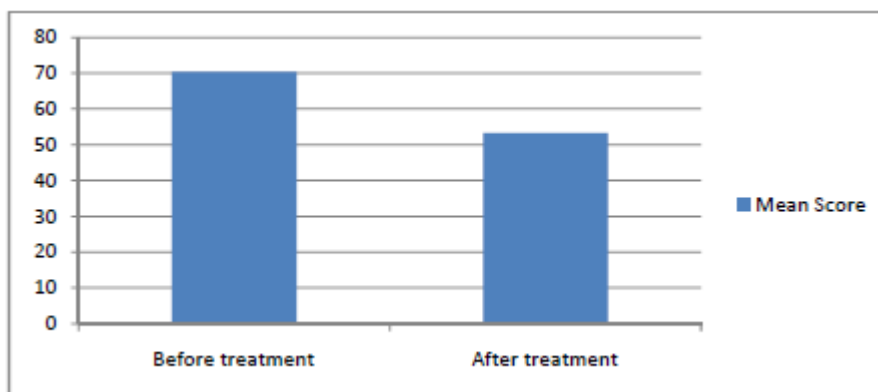
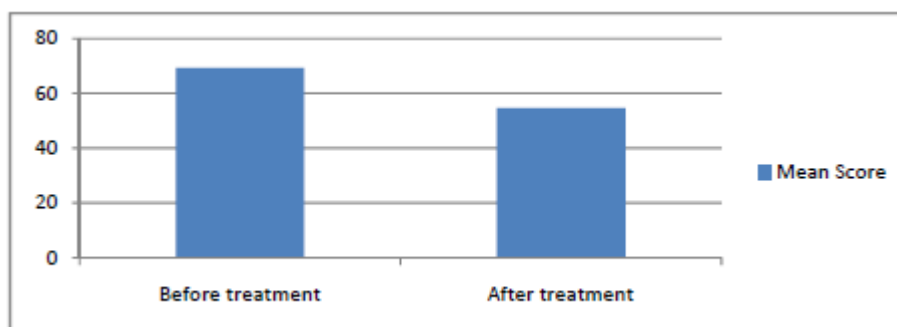


Fig 3. Bar graph representing mean score before & mean score after treatment of control

**Conclusion:**

The study concludes that the Homeopathic medicines when used along with Meditation will effectively reduces the stress levels in medical students as compared to placebo combined with meditation.

**References:**

1. UMA DEVI.T. Journal of Information Technology and Economic Development 2(2). A Study on Stress Management and Coping Strategies with Reference to IT Companies. October 2011. p.30-48.
2. DUBACK, VICTORIA. Measuring the Stress Level of Students Preceding an Exam and Post Animal Interaction Through the Use of Salivary Cortisol; 2015. Honors Theses. Paper 46.
3. DR.DERBASHREE SARKAR, JAYANTA SAHA. . IOSR Journal of Dental and Medical Sciences (IOSR-JDMS).Assessment of Stress among First Year Medical Students of Chhattisgarh. e-ISSN: 2279-0853, p-ISSN: 2279-0861. Volume 14, Issue 8 Ver. VII (Aug. 2015), p.37-40. Website: <http://www.iosrjournals.org/iosr-jdms/papers/Vol14-issue8/Version-7/I014873740.pdf>.
4. Why Indian students are more stressed than ever. Available from website: <http://www.studyinuk.in/blog/why-indian-students-are-more-stressed-than-ever/>. [Last accessed 6th April 2017].
5. Standard Process Stress Assess scale. Available from the website:<https://www.standardprocess.com/Products/Literature/Standard-Process-Stress-Assess-Questionnaire>. [Last accessed 26th March 2017].