

## An Experimental Prospective Study on Effectiveness of Brief Heartfulness-Based Start 'U'p Program on Anxiety and Perceived Stress in Allied Health Students



Sanjana T. Philip<sup>1</sup>, Jayram Thimmapuram<sup>2</sup>, Himanshu Gupta<sup>1</sup>, Tahreem Husain Fatima<sup>1</sup>, Subodh Rahate<sup>1</sup>, Neelam Yeram<sup>3</sup>, Kapil Thakur<sup>4</sup>, Mansee Thakur<sup>1</sup>

1. Department of Medical Biotechnology, MGMSBS, MGMIHS, Sector 1, Kamothe, Navi Mumbai, 2. Internal Medicine Department, Well Span York Hospital, York, Pennsylvania, United States 3. Department of Biochemistry, MGM Medical College, MGMIHS, Sector 1, Kamothe, Navi Mumbai, 4. SRCM Heartfulness Meditation Centre, Navi Mumbai, Maharashtra, India



### **BACKGROUND**

- Stress & anxiety among paramedical students is an area of increasing concern worldwide. 1,2,3
- Mental Healthcare management is an important issue in the development of countries.<sup>4</sup>
- Meditation is a tool that has been used since ancient times to treat stress-related conditions and promote overall wellness.<sup>5</sup>

### **LEARNING OBJECTIVES**

• To determine the efficacy and feasibility of a brief Heartfulnessbased Start 'U'p program to reduce anxiety & stress in allied health students of MGMSBS, MGMIHS, Navi Mumbai.

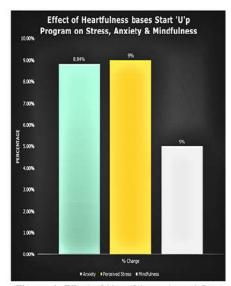


Figure 1 Effect of Heartfulness based Start 'U'p Programme on anxiety, stress & mindfulness among paramedical students



Figure 2. Partiicipants undergoing Heartfulness Meditation

# 5

### **METHODS**

- A total of 308 students (Academic year 2020-21) of MGM Teaching hospital met the inclusion criteria of our study, however, only 203 students voluntarily agreed to participate in the study.
- A quasi-experimental study with two repeated measures (pre and post) was performed.
- Participants received instructions from a Heartfulness certified trainer. 7 sessions of Start 'U'p Heartfulness Meditation of 2 hours duration was carried out, once in every week.
- Research tools such as Perceived Stress Scale (PSS), Beck Anxiety Inventory (BAI) and Five Facet Mindfulness Questionnaire (FFMQ) were used.

Table 1 Mean outcomes of participants in a study to assess the effect of Brief Heartfulness-Based Start 'U'p meditation sessions on stress, anxiety, and mindfulness of allied health college students

Outcome	Baseline mean	7 weeks mean	Difference mean	<i>p</i> -value <sup>a</sup>
Anxiety <sup>b</sup>	32.93	30.02	2.91	< 0.001
Perceived stress <sup>c</sup>	17.89	16.28	1.61	0.006
Mindfulness <sup>d</sup>	115.7	121.38	5.68	0.005

<sup>&</sup>lt;sup>a</sup>p-values were calculated using the Wilcoxon signed rank test due to non-normal paired data.

### **RESULTS**



- Out of 203 students in this study , 75.86% were female and 24.14% were male.
- Students' BAI scores dropped an average of 2.91 points, whereas PSS scores dropped an average of 1.61 points. The largest increase in mindfulness was seen for non-judging, with an average increase of 2.1 points
- Statistically significant changes (p=<0.05) in categorical data from pre- to post-intervention on the BAI and PSS tool were obtained post-intervention.

### **CONCLUSIONS**



- Our results indicate mere the glimpse of meditation offers an accessible and efficient method to reduce anxiety & stress in allied health students.
- Therefore, this study suggests that a continuation of this practice with engagement in learning-oriented objectives will improve overall mental health and thereby holistic development of the students.

### REFERENCES



- 1.Ngasa SN, Sama CB, Dzekem BS, et al. Prevalence and factors associated with depression among medical students in Cameroon: a cross-sectional study. *BMC Psychiatry*. 2017;17(1). doi:10.1186/s12888-017-1382-3.
- 2.Sarkar S, Gupta R, Menon V. A systematic review of depression, anxiety, and stress among medical students in India. *J Ment Health Hum Behav*, 2017; 22(2): 88–96.
- 3. Vizheh M, Qorbani M, Arzaghi SM, Muhidin S, Javanmard Z, Esmaeili M. The Mental Health of Healthcare Workers in the COVID-19 Pandemic: A Systematic Review. *Journal of Diabetes & Metabolic Disorders*. 2020;19(2):1967-1978. doi:10.1007/s40200-020-00643-9.
- 4.Tacón AM, McComb J, Caldera Y, Randolph P. Mindfulness Meditation, Anxiety Reduction, and Heart Disease. *Family & Community Health*. 2003;26(1):25-33. doi:10.1097/00003727-200301000 00004.
- 5. Patel KD, Pollock J. The Heartfulness Way. Westland; 2018..

<sup>&</sup>lt;sup>b</sup>As determined by the Beck Anxiety Inventory (BAI).

<sup>&</sup>lt;sup>c</sup>As determined by the Perceived Stress Scale (PSS).

dAs determined by the Five Facet Mindfulness Questionnaire (FFMQ Total).