

Research Paper

## Influence of meditation in reducing stress of the practitioners

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### ABSTRACT

**Background:** In the fast and competitive pace of life existing now, psychological stress has become a serious problem for many people. Meditation is a non-invasive technique for reducing stress and making people happier and healthy. It is in this background that this study was carried out by Satyananda Yoga Research Centre, Kozhikode, Kerala, India, in collaboration with WEDO (NGO), Kozhikode. **Research Design:** Data was collected using a questionnaire from a random sample of 90 respondents on their stress level before and after three months of breath awareness meditation imparted to them, and the level of happiness due to the practice of meditation. **Tools used:** The questionnaire consisted of the psychological tools to quantify Stress (Kessler et al, 2003) and Happiness (Hills and Argyle, 2002). Data was analysed and interpreted as frequencies and scores using *t* test and correlation. **Results:** When compared to before the meditation practice, more respondents experience low stress after meditation for three months. Maximum proportion of respondents are experiencing low to medium stress only after meditation. Statistically significant difference exists between the mean stress score of males and females after meditation, with females experiencing comparatively more stress than males. Meditators having low stress are experiencing the maximum level of happiness, followed by those having medium stress, while the lowest level of happiness is experienced by the meditators having high stress. No statistically significant difference was observed between the mean happiness score of males and females after meditation. Statistically significant difference in the mean happiness score is observed between the low and medium stress score categories of meditators as well as between the low and high stress score categories. The relationship between stress and happiness of the meditators is also established by the statistically significant high correlation value of 0.72 observed between these parameters. **Conclusion:** The study establishes the influence of meditation in reducing the stress level of the practitioners. Maximum proportion of respondents are experiencing low to medium stress only after meditation for three months, with males having less stress than females. The influence of reduced stress due to meditation in improving the happiness of meditators is also evident from this study.

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**S**tress is a state of emotional suffering associated with stressors and demands that are difficult to cope with in daily life. In the fast and competitive pace of life existing now, psychological stress has become a serious problem for many people. Meditation is a wellness practice that focuses on training awareness, attention, and compassion. Meditation can have many health benefits such as better focus and concentration, improvement of self-esteem and self-awareness, reduction of stress, management of anxiety, fighting addiction, promoting altruistic behaviour etc. The technique of mindfulness meditation, with emphasis on developing detached observation and awareness of the contents of consciousness, may represent a powerful cognitive behavioural coping strategy for transforming the ways in which we respond to life events (Source: Stress Reduction through Mindfulness Meditation. <https://www.karger.com/Article/Abstract/289116> - retrieved 20<sup>th</sup> September 2020).

A study by Brian et al (2006) examined the effects of a ten-day Buddhist mindfulness meditation course on the psychological symptoms of 53 participants, and found reductions in overall psychological stress from the pre-course baseline to a 3-month follow-up. Fred Travis et al (2018) reports the feasibility and effectiveness of implementing the Transcendental Meditation program to improve brain integration and positive affect and reduce stress in government administrators and staff. Vijayaraghavan and Madhava Chandran (2019) found that students are able to achieve better psychological wellbeing through meditation, when compared to before practicing it.

The study reported in this paper was carried out by Satyananda Yoga Research Centre, Kozhikode, Kerala, India, in collaboration with WEDO (NGO), Kozhikode

### **Objective**

To study the effect of meditation practice in reducing stress and to analyze the relationship between stress and happiness levels of the meditation practitioners

## **METHODOLOGY**

### **Sample**

Data was collected using a questionnaire from a random sample of 90 respondents on the stress level before and after three months of breath awareness meditation imparted to them, and their level of happiness due to the practice of meditation.

### **Procedure**

Breath awareness meditation training was given to the respondents in this study by the first author of the paper for a period of two weeks, with follow up every month for three months.

The questionnaire for data collection consisted of the psychological tools to quantify Stress (Kessler et al, 2003) and Happiness (Hills and Argyle, 2002). The responses to the items were scored through the Likert equal interval method. The sum of scores were considered as the total stress score and the total happiness score of the respondents. A lower stress score indicates less of stress, while a higher happiness score indicates more happiness. Data was analysed as frequencies and scores.

### **Statistical analysis**

The data was statistically analyzed using mean, standard deviation and correlation.

## RESULTS

### *Stress Score*

Table 1 shows the range of total stress score of the respondents before and after three months of meditation. The lowest score was found to be 10 before and after meditation, while the maximum score was 35 and 28 before and after meditation respectively. A lower score indicates less of stress.

**Table 1. Total stress score of the respondents**

Details	Range of total stress score	Respondents (%)
Before meditation	10-21	72.2
After meditation	10-22	88.9

The total stress score of the respondents categorized based on Mean and Standard Deviation as Low, Medium and High is shown in Table 2.

**Table 2. Categorization of the total stress score of the respondents after meditation**

Category of the total stress score	Score	Respondents (%)
Low	10	22.2
Medium	13-21	61.1
High	22-28	16.7
Total		100

Table 3 shows the result of the test of significance of the mean total stress score of males and females after meditation.

**Table 3. Test of significance of the stress score of males and females after meditation**

Sex	Mean total stress score
Male	14.5
Female	19.0
$t = -2.10$ ; Significant at $p < 0.05$	

### *Happiness score*

Table 4 gives the happiness score after meditation under different categories of stress score. A higher happiness score denotes more of happiness

**Table 4. Happiness score after meditation under different categories of stress score**

Category of total stress score	Range of happiness score	Correlation (r) between happiness score and stress score after meditation
Low	127-145	0.72
Medium	87-135	Significant at $p < 0.01$
High	74-112	

Table 5 shows the test of significance of the mean happiness score of the meditators under different categories of their stress score

**Table 5. Test of significance of the happiness score after meditation under different categories of stress score**

Stress score category	Mean happiness score
Low	134.3
Medium	106.7
$t = 3.07$ ; Significant at $p < 0.01$	
Low	134.3
High	97.0
$t = 3.45$ ; Significant at $p < 0.01$	

## DISCUSSION

The maximum possible total stress score in this study is 50, while the minimum score is 10. While 88.9 % of respondents have total stress score in the range of 10 to 22 after meditation practice for three months (a range denoting comparatively low stress), 72.2 % respondents only are having such a low stress score in the range of range of 10 to 21 before meditation (Table 1). This means that about 16 % more respondents experience low stress after the meditation practice, when compared to before meditation.

The total stress score of the respondents after mediation categorized based on Mean and Standard Deviation shows 61.1 % respondents in the medium score category, 22.2 % in the low score category, and only 16.7 % fall in the high stress score category (Table 2). Hence, maximum number of respondents are experiencing low to medium stress only after meditation for three months.

There exists statistically significant difference between the mean stress score of males and females after meditation, with females experiencing more stress than males due to a comparatively higher (31 % more) stress score than males (Table 3).

It can be made out from Table 4 that the range of total happiness score after meditation under the low stress score category (127-145) decreases to 87-135 under the medium stress score category, and to 74 to 112 in the high stress score category. This implies that meditators having low stress are experiencing the maximum level of happiness, followed by those having medium stress, while the lowest level of happiness is experienced by the meditators having high stress. No statistically significant difference was observed between the mean happiness score of males and females after meditation.

The effect of less stress in creating more happiness for the meditators is also established from the data presented in Table 5, which shows statistically significant difference between the mean happiness score of 134.3 and 106.7 of the low and medium stress score categories respectively, as well as between the score of 134.3 and 97.0 of the low and high stress score categories of meditators respectively. The relationship between stress and happiness of the meditators is also evident from the high statistically significant correlation value of 0.72 observed between these parameters (Table 4). A study by Holly Schiffrin and Katherine Nelson (2010) reported that the linear correlation observed between happiness and perceived stress is significant, indicating that there is an inverse relationship between these variables.

## CONCLUSION

When compared to before meditation practice, about 16 % more respondents experience low level of stress after meditation. Maximum number of respondents are experiencing low to

medium stress only after meditation for three months. Females experience more stress than men, with statistically significant difference in the stress scores after meditation between the two sexes. However, no statistically significant difference is observed between the mean happiness scores of males and females after meditation. Meditators having low stress are experiencing the maximum level of happiness, followed by those having medium stress, while the lowest level of happiness is experienced by the meditators having high stress. The effect of less stress in creating more happiness for the meditators is also established based on the statistically significant difference in the happiness score of meditators having different levels of stress. The profound relationship between stress and happiness of the meditators is also evident from the significant correlation of 0.72 observed between the scores of these parameters.

Hence, this study establishes the influence of meditation in reducing the stress level of the practitioners. The influence of reduced stress due to meditation in improving the happiness level of the meditators is also evident from the study.

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### Conflict of Interest

The author declared no conflict of interest.

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