

## Effect of Meditation on Psychological Well-being

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### ABSTRACT

**Background:** Relaxation achieved through meditation can play a major role in achieving psychological wellbeing for people. Psychiatrists and psychologists are incorporating training in meditation in their psychotherapy practice. Regular meditation can reduce the number of symptoms experienced by patients with a wide range of illnesses and disorders. **Aim:** This study analyses the effect of meditation on the psychological well-being of people. **Research Design:** Survey method was adopted among a sample of 50 students from Sri Sarada College of Education for Women, Tirunelveli, who attended a meditation class and continued meditation for three months. **Tools used:** Data was collected using a questionnaire on the psychological well-being before and after meditation, quantified as the sum of scores of well-being parameters (OECD, 2013). The data was analysed through t test and regression. **Results:** The results show that students experience better well-being through meditation. The mean well-being a score of the students before mediation was 65.4 % of the maximum attainable score, which increased to 81.7 % of the maximum score after meditation for three months, with a statistically significant difference between them. Regression analysis shows that the score of six well-being parameters contribute to 76.7 % of the variation in the psychological well-being a score of students after meditation, with the parameters, namely, calmness, relaxation, tension and worry having a statistically significant influence on well-being. Among them, relaxation and reduction in tension achieved by the students through meditation have comparatively more influence on their well-being. After three months of meditation, 96 % of students report either maximum or high level of relaxation, while 64 % experience either minimum or no tension. **Conclusion:** Students are able to achieve better psychological well-being through meditation for a period of three months when compared to before practicing meditation. Relaxation and reduction in tension achieved through meditation exert more influence on well-being. It will be worthwhile to conduct research by yoga and meditation centres and disseminate the results to the public for better acceptance of such relaxation techniques.

**Keywords:** Meditation, Psychological well-being, Relaxation

Meditation is an integral component of yoga, having applications for different mental illnesses such as major depressive disorder, chronic pain, generalized anxiety disorder, etc. To get the maximum benefits from yoga, one has to combine meditation with the practice of

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yogasanas and pranayama. More and more psychiatrists, psychologists and other mental health professionals are incorporating training on meditation into their psychotherapy practice. Through meditation, we become aware of the interconnectedness between our emotional, mental and physical levels. Relaxation achieved through meditation has a major role to play in psychological/mental wellbeing. Mediators also experience calmness, more enjoyment in life, empathy and better acceptance of self and others. Meditation and other relaxation techniques have been found to be useful in changing the level of neurotransmitters that help in altering the mood and personality of the practitioners. Regular meditation may reduce the number of symptoms experienced by patients with a wide range of illnesses and disorders.

### METHODOLOGY

Training on meditation was given to the students of Sri Sarada College of Education for Women, Tirunelveli, Tamil Nadu during September 2018. The theory and practice of meditation were taught for two days, followed by an audio clip for self-practice of meditation. The meditation method adopted was breath awareness. The students were initially guided by voice to relax each part of the body one by one from toes to the head. Then they were guided to be aware of the sensation in the nostrils during inhalation and exhalation. Finally, they were guided to bring their awareness to the abdominal wall and chest wall and watch their movements along with the breath. The session lasted for twenty minutes and they were asked to continue the practice two times a day.

The sample for this study included 50 randomly selected students, who continued meditation for a period of three months. Data collected from them on the psychological well-being experienced before the start of meditation and after three months of meditation practice was used in the study. The psychological well-being was quantified as the sum of scores of well-being parameters (OECD, 2013). The responses for the level of experience of the parameters were as follows: maximum, high, minimum and nil. Likert's scoring method was adopted, with reverse scoring for negative parameters, which could reduce through meditation.

The well-being parameters used in this study includes worry and tension (which is a stress on the mind) also. Worry is the unrealistic act of fretting over things you generally have little or no control to change. Stress is the measure of damage enacted upon the mind and body from the unrealistic fear of those unrealistic worries (Source: <https://www.quora.com/What-is-the-difference-between-stress-and-worry>)

Data has been presented as scores and percentages. Statistical analysis was carried out through student's *t* test and multiple regression.

### RESULTS

The range of psychological well-being score of the students before meditation and after three months of meditation is shown in Table 1

*Table 1. Psychological well-being score of the students*

| Score before meditation |                 | Score after three months of meditation |                 |
|-------------------------|-----------------|--|-----------------|
| Range of score*         | Respondents (%) | Range of score*                        | Respondents (%) |
| 52.0-58.3               | 10              | 58.3-68.8                              | 10              |
| 60.4-68.8               | 64              | 70.8-79.2                              | 38              |
|                         |                 | 81.3-89.6                              | 32              |
| 70.8-79.2               | 26              | 91.7-100                               | 20              |
| Total                   | 100             | Total                                  | 100             |

\*expressed as a percentage of the maximum attainable score under the study

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Table 2 shows the results of statistical *t* test carried out to compare the psychological well-being score of the students before and after meditation.

**Table 2. Test of significance of psychological well-being scores**

| Details                          | Mean psychological well-being score of the students | t value                         |
|----------------------------------|---|---------------------------------|
| Before the start of meditation   | 31.4  | - 9.43                          |
| After three months of meditation | 39.2  | Significant at 0.00 probability |

Table 3 gives details of the regression analysis of the score of six parameters, which were found to contribute the maximum to the variation in the well-being score of the students. The parameters are calmness, relaxation, happiness, contentment, tension, and worry.

**Table 3. Regression of well-being parameter scores with well-being score after meditation**

| Well being parameter | Mean score | Regression coefficient | Standard Deviation | Statistically significant at | R <sup>2</sup> |
|----------------------|------------|------------------------|--------------------|------------------------------|----------------|
| Calmness             | 3.34       | 1.813                  | 4.55               | 0.00 probability             | 0.767          |
| Relaxation           | 3.44       | 2.255                  | 4.84               | 0.00 probability             | F = 23.571     |
| Happiness            | 3.64       | 0.956                  | 4.81               | NS                           | Significant at |
| Contentment          | 3.24       | 0.612                  | 5.32               | NS                           | at             |
| Tension              | 2.96       | 2.754                  | 3.79               | 0.00 probability             | 0.00           |
| Worry                | 3.08       | 1.930                  | 3.74               | 0.00 probability             | probability    |

NS- Not significant

Table 4 gives details of the level of experience of various well-being parameters by the students after practicing meditation for three months.

**Table 4. Level of experience of well-being parameters after three months of meditation**

| Parameter   | Respondents (%)                                     |      |         |     | Total (%) |
|-------------|---|------|---------|-----|-----------|
|             | Level of experience of wellbeing for the parameters |      |         |     |           |
|             | Maximum   | High | Minimum | Nil |           |
| Happiness   | 70  | 24   | 06      | Nil | 100       |
| Contentment | 32  | 62   | 04      | 02  | 100       |
| Calmness    | 46  | 42   | 12      | Nil | 100       |
| Relaxation  | 50  | 46   | 06      | Nil | 100       |
| Tension     | Nil   | 36   | 32      | 32  | 100       |
| Worry       | 02  | 28   | 30      | 40  | 100       |
| Anger       | 02  | 42   | 20      | 36  | 100       |
| Loneliness  | 06  | 16   | 26      | 52  | 100       |

Correlation between the score of different well-being parameters and well-being score of the students after three months of meditation was worked out and the statistically significant results are presented in Table 5.

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**Table 5. Statistically significant correlation between parameter scores after three months of meditation**

| Parameter        | Correlation ( r ) |             |          |            |         |       |       |            |
|------------------|-------------------|-------------|----------|------------|---------|-------|-------|------------|
|                  | Happiness         | Contentment | Calmness | Relaxation | Tension | Worry | Anger | Loneliness |
| Happiness        | -                 | -           | -        | -          | -       | -     | -     | -          |
| Contentment      | -                 | -           | 0.38*    | -          | -       | -     | -     | -          |
| Calmness         | -                 | -           | -        | -          | -       | -     | -     | -          |
| Relaxation       | -                 | -           | -        | -          | -       | -     | -     | -          |
| Tension          | -                 | 0.33*       | -        | -          | -       | -     | -     | -          |
| Worry            | -                 | 0.37*       | -        | -          | 0.51*   | -     | -     | -          |
| Anger            | -                 | 0.36*       | -        | -          | 0.63*   | 0.58* | -     | -          |
| Loneliness       | -                 | -           | -        | -          | 0.54*   | 0.50* | 0.54* | -          |
| Well-being score | -                 | 0.54*       | 0.37*    | 0.31*      | 0.70*   | 0.65* | 0.75* | 0.65*      |

\* Significant at 0.01 probability

### DISCUSSION

It may be made out from Table 1 that, while only 26 % of students are getting a score in the range of 70.8 to 79.2 % of the maximum attainable score in this study before the start of meditation, after three months of meditation practice, more students (38 %) are getting a score in the range of 70.8 to 79.2 % of the maximum attainable score. Further, it can be inferred from Table 1 that, before meditation, a total of 74 % of the students has a score in the range of 52.0 to 68.8 % of the maximum attainable score only. However, after three months of meditation, a total of 70 % of students are able to get a score in the higher range of 70.8 to 89.6 % of the maximum attainable well-being a score (Table 1). This indicates that the students are able to experience comparatively better psychological well-being through the practice of meditation.

The mean score of the 50 students before mediation is 31.4 (which is equivalent to 65.4 % of the maximum attainable score in this study). However, due to the practice of meditation for a period of three months, the mean score of the 50 students has increased to 39.2, which is equivalent to 81.7 % of the maximum attainable score. The *t* test is significant, indicating that there exists a statistically significant difference between before meditation and after meditation well-being scores of the students (Table 2).

It can be seen from Table 3 that under the regression analysis with well-being score, the six parameters, namely, calmness, relaxation, happiness, contentment, tension, and worry shows an  $R^2$  value of 0.767, with a statistically significant *F* value 23.571. This implies that these six parameters contribute to 76.7 % of the variation observed in the well-being score of the students after three months of meditation. However, the regression coefficients of calmness, relaxation, tension, and worry only are statistically significant under the regression analysis (Table 3). Among them, relaxation and tension have more influence on psychological well-being, since they have comparatively higher regression coefficients than the other parameters (Table3).

A total of 96 % of students are achieving maximum and high level of relaxation, while a total of 64 % of students experience minimum and no tension after three months of meditation (Table 4).

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Interpretation of the results of correlation between parameters is restricted to r value of more than 0.6 only. It can be made out from Table 5 that there exists a correlation of 0.63 between the parameters, namely, anger and tension. After three months of meditation, the total percentage of students experiencing minimum and no tension, minimum and no anger are 64 and 56 respectively (Table 4). Less tension experienced due to the practice of meditation could have probably helped in reducing the anger of the students. According to Robert Codray (undated), stress can contribute to anger.

Table 5 shows a significant correlation in the range of 0.65 to 0.75 between well-being score and score of the parameters, namely, tension, worry, anger, and loneliness. It can be made out from Table 4 that the total proportion of students reporting minimum and nil tension, worry, anger and loneliness after three months of meditation works out to as much as 64 %, 70 %, 56 %, and 78 % respectively for the four parameters. This could have contributed to the high correlation values observed between the score of these parameters and well-being score of the students after meditation (Table 5).

The mean scores of the students for tension, worry, anger, and loneliness after three months of meditation were analysed for the following two groups:

**Group 1. Students who get a well-being score of less than 80 % of the maximum attainable score**

**Group 2. Students who get a well-being score of more than 80 % of the maximum attainable score.**

The data showed that the mean score of the four well-being parameters lie in the range of 2.26 to 2.69 for the first group, while it is in the higher range of 3.54 to 3.83 in the case of group 2. This also substantiates the high and significant correlation of 0.65 to 0.75 observed between well-being score and score for tension, worry, anger and loneliness (Table 5)

Quaiser Suleman *et al* (2018) observed a strong negative correlation between perceived occupational stress and psychological well-being. According to Ayano Yamaguchi *et al* (2015), anger suppression is a significant factor in perceived stress. Revati K. Bhagchandani (2017) reported a significant negative relationship between loneliness and psychological well-being among the youth.

## CONCLUSIONS

As per the results of the study, students are able to achieve a better state of psychological well-being through meditation for a period of three months, when compared to before practicing meditation. The mean well-being score of students before mediation works out to 65.4 % of the maximum attainable score in the study. However, through the practice of meditation for three months, their mean score increased to 81.7 % of the maximum attainable score. Statistically, significant difference is there between the well-being scores of students before and after meditation. Six well-being parameters contribute to 76.7 % of the variation observed in the well-being score of the students after three months of meditation, out of which, the parameters, namely, calmness, relaxation, tension, and worry have a significant influence on the well-being score. Among them, relaxation and reduction in tension achieved by the students through meditation are found to exert comparatively more influence on their well-being. 96 % of students report either maximum or high level of relaxation, while 64 % of students experience either minimum or no tension after three months of meditation.

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The total proportion of students giving the responses - minimum and nil for the parameters, namely, tension, worry, anger and loneliness after three months of meditation is high (64 %, 70 %, 56 %, and 78 % respectively). The mean score for tension, worry, anger and loneliness are in the range of 2.26 to 2.69 for students who get a well-being score of less than 80 % of the maximum attainable score, while it is more (3.54 to 3.83) for students having a well-being score more than 80 % of the maximum attainable score. These factors could have contributed to the statistically significant high correlation values of 0.65 to 0.75 observed between the score of these four well-being parameters and well-being score in this study.

As far as Kerala is concerned, not many studies have been reported on meditation and yoga. It will be useful to conduct research on the physical and psychological benefits of yoga and meditation among different sections of people in the State. The results of such studies could be useful to motivate people with different socio-economic/cultural backgrounds to practice them. In addition to academic and research institutions, yoga/meditation centres in different parts of the country should also be given sufficient opportunity by funding agencies such as AYUSH for carrying out such studies as well as conducting awareness programs, seminars, etc. for transfer of the results to the public.

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### Conflict of Interest

The authors carefully declare this paper to bear not a conflict of interests

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