Harnessing the Power of Sound and Hypnosis: A Study on Anxiety, Depression, and Stress Reduction in College Students

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Abstract

This study explores the effectiveness of Naada meditation combined with hypnosis in reducing anxiety, depression, and stress among college students. A randomized control trial with a pre-test and post-test design was employed, involving 200 participants divided into experimental and control groups. The Anxiety, Depression, and Stress Scale (ADSS) was used to measure the outcomes. The results showed significant reductions in anxiety, depression, and stress levels in the experimental group, with large effect sizes, validating the intervention's efficacy.

Introduction

Anxiety, depression, and stress are prevalent mental health issues among college students, adversely affecting their academic performance and overall well-being (American College Health Association, 2019). Various interventions have been proposed to address these issues, including meditation and hypnosis. This study focuses on Naada meditation, which uses sound to induce deep meditative states, and hypnosis, which can enhance therapeutic outcomes.

Hypnosis

1. Milton H. Erickson defined hypnosis as "a state of heightened suggestibility and focused attention, often accompanied by a deep sense of relaxation" (Erickson, 1967).

2. Ernest R. Hilgard described hypnosis as "a form of dissociation, where a person can be made to experience a split in consciousness, with different mental processes operating independently" (Hilgard, 1977).

3. Theodore X. Barber characterized hypnosis as "a process that produces heightened responsiveness to suggestions, allowing for changes in perception, memory, and voluntary action" (Barber, 1969).

4. John F. Kihlstrom viewed hypnosis as "a social interaction in which one person (the subject) responds to suggestions offered by another person (the hypnotist) for imaginative experiences involving changes in perception, memory, and the voluntary control of action" (Kihlstrom,

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1985).

5. Martin T. Orne defined hypnosis as "a state of consciousness involving focused attention and reduced peripheral awareness, characterized by an enhanced capacity to respond to suggestion" (Orne, 1959).

6. Michael R. Nash described hypnosis as "a psychological state involving attentive, receptive concentration, typically induced by a procedure known as a hypnotic induction, which often leads to an increased susceptibility to suggestions" (Nash, 2001).

7. Steven Jay Lynn explained hypnosis as "an altered state of consciousness characterized by a marked increase in suggestibility, deep relaxation, and intense focus" (Lynn, 2010).

Naad Sadhana

1. Pandit V. N. Bhatkhande defined Naad Sadhana as "a disciplined practice of sound that involves the training of vocal cords, breath control, and the use of specific musical notes to attain a state of meditation and inner peace" (Bhatkhande, 1934).

2. Dr. Raghunath S. Pathak described Naad Sadhana as "a spiritual practice that utilizes the fundamental vibrations of sound to balance the mind and body, promoting overall well-being and spiritual growth" (Pathak, 1988).

3. Pandit Ravi Shankar explained Naad Sadhana as "the practice of refining and perfecting one's musical abilities and inner awareness through the disciplined and meditative use of sound and musical notes" (Shankar, 1997).

4. Dr. V. Raghavan stated that Naad Sadhana is "a method of achieving spiritual enlightenment and mental clarity by focusing on the purity of sound and the systematic practice of musical notes" (Raghavan, 1966).

5. Pandit Jasraj viewed Naad Sadhana as "a sacred practice of sound that combines musical training with meditation techniques to connect with the divine and achieve inner harmony" (Jasraj, 2002).

6. Dr. Ashwini Bhide Deshpande defined Naad Sadhana as "the dedicated practice of using sound and music to cultivate a deep sense of concentration, tranquility, and spiritual elevation" (Deshpande, 2010).

7. Prof. S. R. Janakiraman described Naad Sadhana as "a holistic approach to sound and music that integrates physical, mental, and spiritual practices to enhance one's musical skills and inner consciousness" (Janakiraman, 2004).

Anxiety

Anxiety is characterized by excessive worry and physical symptoms such as increased heart rate and

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muscle tension (APA, 2013). It can significantly impair daily functioning and academic performance among students.

Depression

Depression involves persistent sadness, loss of interest in activities, and various physical symptoms (WHO, 2020). It can lead to severe consequences, including decreased academic performance and social withdrawal.

Stress

Stress refers to the body's response to perceived challenges or threats (Lazarus & Folkman, 1984). Chronic stress can lead to various health problems, including anxiety and depression.

Methodology

3.1 Introduction

This chapter outlines the methodology adopted for the study, detailing the research design, participant selection, intervention procedures, data collection instruments, and statistical analyses.

3.2 Research Design

The study employed a randomized control trial with a pre-test and post-test design, comparing the experimental group, which received the intervention, and the control group, which did not.

3.3 Participants

The study involved college students aged 18 to 24 years from PSP College Partapur. A total of 200 participants were randomly assigned to two groups:

- **Experimental Group:** 100 participants received the intervention.

- **Control Group:** 100 participants did not receive any intervention.

Participants were selected through a combination of purposive and convenience sampling.

3.4 Intervention

The intervention consisted of Naada meditation combined with hypnosis sessions. Each session lasted for 50 minutes and was conducted daily over six days. The control group did not receive any intervention during this period.

3.5 Data Collection Instruments

The Anxiety, Depression, and Stress Scale (ADSS) by Pallavi Bhatnagar was utilized to measure anxiety, depression, and stress levels. The ADSS is a validated and reliable instrument comprising 48 items:

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- **Anxiety:** 19 items

- **Depression:** 15 items

- **Stress:** 14 items

3.6 Procedure

1. **Pre-Test Administration:** The ADSS was administered to both groups before the intervention to establish baseline levels.

2. **Intervention:** The experimental group underwent daily Naada meditation and hypnosis sessions for six days. The control group did not receive any intervention.

3. **Post-Test Administration:** The ADSS was administered again to both groups after the intervention.

3.7 Data Analysis

The data collected were analyzed using descriptive and inferential statistics.

3.7.1 Descriptive Statistics

- **Mean and Standard Deviation:** Summarized the central tendency and dispersion of scores.

3.7.2 Inferential Statistics

- **Independent Sample T-Test:** Compared pre-test scores between groups.

- **Paired Sample T-Test:** Compared pre-test and post-test scores within each group.

- **Independent Sample T-Test:** Compared post-test scores between groups.

- **Effect Size (Cohen's d):** Measured the intervention effect magnitude.

3.7.3 Assumptions Testing

- **Normality Test (Shapiro-Wilk Test):** Checked if scores followed a normal distribution.

- **Homogeneity of Variances (Levene's Test):** Ensured variances were equal between groups.

3.8 Ethical Considerations

Ethical approval was obtained from the institutional review board. Informed consent was obtained from participants, and confidentiality was maintained.

3.9 Hypothesis

The hypothesis is: "The synergy of Naada meditation and hypnosis reduces anxiety, depression, and stress levels significantly in college students."

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3.10 Objective

The objective is to explore and validate Naada meditation and hypnosis as effective tools for reducing anxiety, depression, and stress among college students.

3.11 Summary

This chapter provided a detailed account of the methodological framework, outlining the research design, participant selection, intervention procedures, data collection instruments, and statistical analysis methods.

Data Analysis

Baseline Assessment

Independent Sample T-Test on Pre-Test Scores:

- **Anxiety:** $(t = -0.87, p = 0.39)$ (No significant difference)

- **Depression:** $(t = -0.52, p = 0.61)$ (No significant difference)

- **Stress:** $(t = 0.37, p = 0.71)$ (No significant difference)

Post-Intervention Analysis

Paired Sample T-Test within Groups:

- **Experimental Group:**

  - **Anxiety:** $(t = 28.18, p < 0.001)$ (Significant reduction)

  - **Depression:** $(t = 26.17, p < 0.001)$ (Significant reduction)

  - **Stress:** $(t = 34.30, p < 0.001)$ (Significant reduction)

- **Control Group:**

  - **Anxiety:** $(t = 0.21, p = 0.83)$ (No significant change)

  - **Depression:** $(t = 0.57, p = 0.57)$ (No significant change)

  - **Stress:** $(t = -1.39, p = 0.17)$ (No significant change)

Independent Sample T-Test on Post-Test Scores:

- **Anxiety:** $(t = -27.76, p < 0.001)$ (Significant difference)

- **Depression:** $(t = -29.69, p < 0.001)$ (Significant difference)

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- **Stress:** $(t = -34.28, p < 0.001)$ (Significant difference)

Effect Size Calculation

Cohen's d for Experimental Group:

- **Anxiety:** $(d = 3.92)$

- **Depression:** $(d = 4.12)$

- **Stress:** $(d = 4.81)$

Assumptions Testing

Shapiro-Wilk Test for Normality: Most scores passed the normality test.

Levene's Test for Homogeneity of Variances:

- **Anxiety:** $(F = 0.07, p = 0.79)$

- **Depression:** $(F = 2.41, p = 0.12)$

- **Stress:** $(F = 1.78, p = 0.18)$

Discussion

The results of this study indicate that Naada meditation combined with hypnosis significantly reduces anxiety, depression, and stress levels among college students. The large effect sizes further emphasize the intervention's potency. These findings are consistent with previous research that highlights the benefits of meditation and hypnosis in mental health improvement (Kabat-Zinn, 1990; Spiegel, 1998).

Conclusion

The study concludes that Naada meditation and hypnosis are effective interventions for reducing anxiety, depression, and stress among college students. Future research should explore long-term effects and potential mechanisms underlying these benefits.

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