THE EFFECT OF GUIDED MINDFULNESS MEDITATION ON REDUCING ACADEMIC STRESS DURING EXAMS

1. Abstract

This experimental case study investigates the effectiveness of a 14-day **guided mindfulness meditation program** on reducing self-reported academic stress among undergraduate students during their final exams. A **pre-post test control group design** was used, with stress levels measured using the **Perceived Stress Scale (PSS-10)**. The study provides a step-by-step guide for students working on intervention-based psychology assignments.

2. Introduction

Academic stress is one of the most common psychological complaints among university students. Mindfulness-based interventions have emerged as promising tools to improve focus, emotional regulation, and stress management. This case explores the efficacy of a structured meditation routine for reducing stress during exams.

3. Research Objective

To evaluate whether daily guided mindfulness meditation significantly reduces academic stress levels compared to no intervention.

4. Hypotheses

- **H_0 (Null)**: There is no significant difference in PSS scores before and after the intervention.
- **H_1 (Alternate)**: Students in the meditation group will report significantly lower PSS scores post-intervention.

5. Methodology

Design

Randomised Controlled Trial – Pre-post design

Participants

Group	N	Description
Experimental Group	30	Received daily guided meditation
Control Group	30	No intervention

Procedure

- Baseline PSS-10 scores collected
- Experimental group used Headspace app for 10 mins/day
- Final PSS scores collected on day 14

6. Data Summary

Descriptive Statistics

Group	Pre-Test Mean	Post-Test Mean	SD
Meditation Group	22.4	15.8	3.2
Control Group	21.9	21.1	3.6

7. Statistical Analysis

Independent Samples t-test (Post-Test Scores)

$$ t(58) = 6.14,\quad p < 0.001 $$

- **Cohen's d = 1.14** → Large effect size
- Significant reduction in stress scores for meditation group

8. Visualization

Bar Chart: Average PSS Scores

Group	Stress Level ↓
Meditation Pre	████████████
Meditation Post	██████

| Control Pre | [redacted] |

| Control Post | [redacted] |

9. Discussion

The results support the use of **guided mindfulness meditation** for reducing academic stress. Students in the experimental group showed a **statistically and practically significant** reduction in stress, while control participants showed minimal change.

Educational Impact:

- Students learn how to frame and test interventions
- Reinforces experimental psychology structure (design, randomisation, effect size)
- Demonstrates real-world application of psychological wellness techniques

Limitations:

- Short intervention period (2 weeks)
- No physiological stress markers used
- Convenience sampling

10. Assignment Learning Outcomes

Skill	**Demonstrated Through**
Experimental design principles	Randomisation, control group setup
Statistical analysis and interpretation	t-test, effect size, p-value reporting
Psychological theory to practice	Mindfulness in action
Reporting standards	APA-style structure and analysis output

11. Conclusion

This intervention-based case study demonstrates the effectiveness of mindfulness meditation in reducing academic stress. For psychology students, it provides a structured example of hypothesis testing, intervention design, and the interpretation of psychological data.

12. References

- Kabat-Zinn, J. (2003). *Mindfulness-based interventions in context: Past, present, and future.*
- Cohen, S., et al. (1983). *A global measure of perceived stress.*
- Headspace Inc. (2024). *Mindfulness content library for guided meditation.*