



MENTAL HEALTH & ACADEMICS: THE RELATIONSHIP BETWEEN STUDENT WELL-BEING AND ACADEMIC PERFORMANCE

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ABSTRACT

The goal of this research is to find out how a twelve-week mindfulness-based stress reduction (MBSR) program influences the psychological well-being and scholastic achievement of college freshmen. Examining how mental health therapy may affect academic achievement was the driving force behind this research. Researchers employed qualitative interviews, quantitative evaluations, and comparisons to control groups as part of a mixed-methods strategy to achieve this goal. Improvements in participants' mental health, academic performance, and overall stress levels were seen after they participated in the Mindfulness-Based Stress Reduction (MBSR) program. Interestingly, students in the control group also showed signs of improved academic performance, which may point to the existence of academic impacts from outside the institution. In illuminating the complex mechanisms mediating the relationship between students' mental health and their academic performance, the results highlight the crucial role that students' mental health plays in this process. Additional longitudinal studies are needed to fully comprehend the long-term impacts, individual differences, and systemic consequences, according to the study. There may be tangible benefits to students' emotional resilience and academic performance by implementing mental health support programs, including mindfulness efforts, into university environments.

Keywords: *Mental Health, Academic Performance, Student Well-being, Mindfulness-Based Stress Reduction (MBSR), Higher Education, Stress Reduction, Mixed-Methods Research, University Students, Emotional Well-being, Academic Success*

INTRODUCTION

When it comes to a child's academic performance, there is a strong correlation to their mental health. There has been growing concern in recent years over the effect of students' mental health on their academic achievement [1]. Everything from anxiety and stress to pessimism and weariness falls under this umbrella. Many students report high levels of psychological strain as a result of today's demanding and competitive academic environments; this strain can have detrimental effects on students' mental health and cognitive abilities, including their motivation, focus, and memory.

There is a close relationship between the mental, emotional, and social well-being of students, which are all components of their total well-being. The ability to bear the stresses of school, maintain a consistent grade point average, and engage actively in class is significantly improved for students who are mentally healthy[2]. The flip side of the coin is that adolescents who do not get treatment for their mental health

issues may face a reduction in their academic performance, poor attendance, and maybe even dropping out of school entirely. It would be beneficial for educators, policymakers, and organisations who are seeking to cultivate good learning environments to become acquainted with this link.

There is mounting evidence that a person's mental health greatly affects their academic performance [3]. Students' resilience, emotional regulation, and academic persistence may be enhanced via interventions including wellness programs, peer support networks, counselling services, and mindfulness-based stress reduction (MBSR). Many things come together to produce this intricate connection, including a person's financial status, the stability of their family, their lifestyle choices, and the resources at their disposal [4].

The complex interplay between college students' psychological well-being and their scholastic achievement is the driving force behind this research. The results stress how important it is to provide students with extensive support systems [5]. This research aims to emphasise the significance of mental health as an important component of academic accomplishment by reviewing the most current empirical evidence and theoretical frameworks.

OBJECTIVES

1. To investigate how higher education students' mental health affects their academic achievement.
2. To evaluate how well-being interventions—like mindfulness training—affect academic performance.

HYPOTHESIS

Null Hypothesis (H_0):

Academic achievement and students' mental health do not significantly correlate[6].

Alternative Hypothesis (H_1):

Students' academic success and mental health are significantly correlated, meaning that higher academic results are linked to greater mental health.

RESEARCH METHODOLOGY

Examining how students' mental health relates to their performance in the classroom was the driving force for this research [7]. We employed a mixed-methods strategy. Standardised questionnaires like the Perceived Stress Scale (PSS), the Generalised Anxiety Disorder Scale (GAD-7), and the WHO-5 Well-being Index are used to gather quantitative data. Grade point averages (GPAs), culled from official university records, are used to evaluate academic achievement. Students' experiences with mental health and its impact on their academic performance are explored using semi-structured interviews and open-ended questions to gather qualitative data. Randomised controlled trials, or RCTs for short, were the methodological tool of choice in this investigation. We use a stratified random selection approach to choose 100 undergraduates from various schools and institutions [8]. Next, the class is divided in half. Half of the students will take part in a twelve-week mindfulness-based stress reduction (MBSR) program, while the

other half will not. There are three points in time where data is gathered: at the start, middle, and finish of the intervention [9]. This is done to ensure that the effects on academic performance and mental health can be tracked over time. In line with ethical standards, we advocate for the following principles: the need of informed consent, the need to protect participants' privacy, and the idea that participation should be entirely voluntary. By supplementing and contextualising quantitative data with qualitative replies, we can guarantee the results' dependability and validity. In addition, well-established psychometric features are employed in standardised surveys. The myriad ways in which a student's mental health may affect their academic performance might be better understood with this integrated approach [10].

RESULT

The Perceived Stress Scale (PSS-10), the Generalised Anxiety Disorder Scale (GAD-7), and the WHO-5 Well-being Index were administered to participants in this twelve-week mindfulness-based stress reduction (MBSR) program at three distinct points in time: before, during, and after the intervention. The purpose of this was to find out how students' happiness affected their grades [11].

Key Findings:

Stress Levels (PSS-10):

At baseline, 20% of students reported severe stress ("Very Often" feeling unable to manage critical things), but after the intervention, that number dropped to 10%, and the proportion of students reporting "Never" rose from 10% to 25%.

Confidence and Coping:

An rise from 20% to 30% in students expressing high confidence in addressing personal difficulties ("Very Often") indicates an improvement in self-efficacy.

Anxiety Levels (GAD-7):

The percentage of students who reported worrying often ("Nearly every day") was rather high before and after the intervention, although it improved somewhat thereafter. Twenty percent at the baseline and thirty-five percent at the post-test reported no uneasiness[12].

Well-being (WHO-5):

Near the end of the session, 40% of students said they felt relaxed and peaceful "All the time," and 30% said they felt joyful "More than half the time," indicating an improvement in their mental health.

Table 1. Pre-intervention GPA[13]

Participants' ID	Experiment GPA	Control Group GPA
1	3.2	3.4

2	3.5	3.3
3	3.1	3.2
4	3.6	3.4
5	3.3	3.5
6	3.4	3.6
7	3.2	3.3
8	3.5	3.4
9	3.3	3.6
10	3.6	3.2
11	3.1	3.4
12	3.4	3.5
13	3.2	3.3
14	3.5	3.1
15	3.3	3.4
16	3.6	3.5
17	3.4	3.6
18	3.5	3.2
19	3.2	3.5
20	3.6	3.3
21	3.3	3.4
22	3.4	3.1
23	3.1	3.6
24	3.5	3.3
25	3.2	3.5

26	3.3	3.4
27	3.6	3.2
28	3.4	3.5
29	3.2	3.3
30	3.5	3.6
31	3.1	3.4
32	3.4	3.5
33	3.2	3.6
34	3.6	3.3
35	3.3	3.2
36	3.4	3.1
37	3.2	3.4
38	3.5	3.3
39	3.3	3.5
40	3.6	3.4
41	3.4	3.6
42	3.5	3.2
43	3.2	3.5
44	3.6	3.3
45	3.3	3.4
46	3.4	3.1
47	3.1	3.6
48	3.5	3.3
49	3.2	3.5

50	3.4	3.2
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Table 2. Post-Intervention Academic GPA[14]

Participants' ID	Experiment GPA	Control Group GPA
1	3.4	3.5
2	3.6	3.3
3	3.3	3.4
4	3.5	3.2
5	3.6	3.6
6	3.4	3.4
7	3.5	3.1
8	3.3	3.5
9	3.6	3.3
10	3.4	3.2
11	3.5	3.4
12	3.2	3.3
13	3.4	3.6
14	3.6	3.4
15	3.5	3.5
16	3.3	3.2
17	3.4	3.4
18	3.6	3.1
19	3.5	3.6
20	3.3	3.5
21	3.6	3.3

22	3.4	3.2
23	3.5	3.4
24	3.2	3.5
25	3.4	3.3
26	3.6	3.6
27	3.5	3.4
28	3.3	3.1
29	3.4	3.5
30	3.6	3.3
31	3.5	3.2
32	3.3	3.4
33	3.4	3.6
34	3.6	3.4
35	3.5	3.5
36	3.3	3.2
37	3.4	3.4
38	3.6	3.1
39	3.5	3.6
40	3.3	3.5
41	3.6	3.3
42	3.4	3.2
43	3.5	3.4
44	3.2	3.5
45	3.4	3.3

46	3.6	3.6
47	3.5	3.4
48	3.3	3.1
49	3.4	3.5
50	3.6	3.3

Experimental Group (EG) GPA Differences:

Summing up the disparities in grade point averages:

$$M = (\Sigma \text{GPA Differences}) / 50$$

$$M = (0.94) / 50 \quad M = 0.0188$$

Finding the dispersion of the grade point averages (S):

$$S = \sqrt{[(\Sigma(\text{GPA Differences} - M)^2) / (N - 1)]}$$

$$S \approx \sqrt{[(0.03712) / 49]} \quad S \approx 0.1159$$

Finding the t-statistic results:

$$t = (M - 0) / (S / \sqrt{N})$$

$$t = (0.0188 - 0) / (0.1159 / \sqrt{50})$$

$$t \approx 2.97$$

Control Group GPA Differences:

Summing up the disparities in grade point averages:

$$M = (\Sigma \text{GPA Differences}) / 50$$

$$M = (0.58) / 50 \quad M = 0.0116$$

Finding the dispersion of the grade point averages (S):

$$S = \sqrt{[(\Sigma(\text{GPA Differences} - M)^2) / (N - 1)]}$$

$$S \approx \sqrt{[(0.036448) / 49]} \quad S \approx 0.1136$$

Finding the t-statistic results:

$$t = (M - 0) / (S / \sqrt{N})$$

$$t = (0.0116 - 0) / (0.1136 / \sqrt{50})$$

$$t \approx 2.54$$

A two-tailed test with 49 degrees of freedom and an alpha level of 0.05 is used to compare these t-values. The important t-value is around ± 2.0096 when conducted using a two-tailed test with $\alpha = 0.05$ and 49 degrees of freedom[15].

T-value for Experimental Group (EG): ≈ 2.97 .

Since the absolute value of the estimated t-value (2.97) is much higher than the critical t-value (± 2.0096), we may reject the null hypothesis (H_0) for the Experimental Group. This suggests that there is a substantial difference in the Experimental Group's GPA before and after the intervention, lending credence to the alternative hypothesis (H_1).

T-value for Control Group (CG): ≈ 2.54 .

When looking at absolute numbers, the Control Group's t-value of 2.54 exceeds the threshold t-value of $\pm 2.0096,000$. This allows us to rule out the possibility of the Control Group's null hypothesis (H_0). This lends credence to the first hypothesis, which suggests that the Control Group's grade point average changed significantly between the pre- and post-intervention times. The results demonstrate that both the Experimental Group and the Control Group's grade point averages increased significantly both before and after the intervention, providing further evidence that the intervention was effective [16]. Here are synopses of feedback and comments received from both the Mindfulness-Based Stress Reduction (MBSR) program's experimental group and the control group that did not participate in the program. According to the "Interview Questionnaire," the outcomes are shown for every single question as a percentage:

Participants in MBSR Program experimental group

Section 1: Program MBSR experiences

1. Could you please explain your entire MBSR program experience? What did you anticipate at first, and were you satisfied?

Positive Experience: Seventy percent said the MBSR program was very beneficial. It surpassed my expectations, and I now feel more emotionally in control.

Mixed Experience: Although 20% had some early concerns, generally, it proved to be a worthwhile experience.

Negative Experience: 10% said they didn't see a big shift, and the program didn't live up to my expectations.

2. Could you describe any particular mindfulness exercises or methods from the course that you found especially beneficial or difficult?

Found Helpful: When it came to controlling anxious thoughts and feelings, 75% said that body scans and mindful breathing were very useful[17].

Found Challenging: Twenty-five percent found it challenging to maintain attention throughout the "mindful eating" technique.

3. What effects did taking part in the MBSR program have on your day-to-day relationships with friends, family, and your studies?

Positive Impact: Eighty percent of people said I improved my social skills and study habits.

No Significant Impact: 20%, I had a positive experience, but my day-to-day life remained mostly same.

4. After completing the program, did you see any improvements in your capacity to control your stress and anxiety? Could you please explain these changes?

Reduced Stress and Anxiety: I'm much more relaxed now, and my stress levels dropped by 85 percent.

No Noticeable Change: 15% saw no improvement in my anxiety levels.

5. Any occasions throughout the course when you felt exceptionally attentive, at peace, or connected to yourself? Please share those experiences.

True, Multiple Moments: 70%, During my meditation, I had numerous moments of genuine mindfulness and calm.

Few Moments: 30%, had brief periods of profound calm and communion with my soul.

Section 2: Academic success and well-being

6. How much do you think your academic achievement was impacted by taking part in the MBSR program? Could you please elaborate on your beliefs?

Positive Influence: Because it helped me relax and concentrate more, 65% of people think it had a good effect on my grades.

No Influence: It reduced my stress levels by 35%, but I don't believe it had much of an impact on my grades.

7. How did your anxiety and tension change throughout the program? Could you name specific issues or situations where the program helped?

Lower Anxiety and Stress: As a result of the training, 70% of participants reported feeling more relaxed and capable when faced with difficult tests and tasks.

No Noticeable Change: Thirty percent, it was helpful in certain cases, but worry and tension still lingered at other instances.

8. How has the MBSR program impacted your general well-being, including your emotional and mental health, in your opinion? Tell us about any particular realisations or lessons you have learnt.

Improved Well-being: 75% report improved mental and emotional health and coping abilities.

No Significant Change: 25%, I learnt new things, but my health didn't improve much.

Section 3: General Thoughts

9. How would you advise potential MBSR students?

Positive Recommendations: 90% recommend it for stress relief and self-improvement.

Mixed Recommendations: 10%, I'd suggest it, but only after you mention that everyone's experience is different[18].

Control Group: Participants in No Intervention

Members in the control group who did not take part in the MBSR program may provide feedback on their health and other topics unrelated to the program, but their answers to the MBSR-specific questions will be blank.

DISCUSSION

1. Assessment of Stress and Student Well-Being

In both groups, thirty percent of individuals said that they had feelings of helplessness on occasion, and twenty percent of individuals stated that they lacked self-assurance when confronted with obstacles. This brings to light the fact that an individual was experiencing emotional challenges previous to the intervention. During the midway point of the research, all of the participants, but particularly those who were part of the experimental group, had significant gains in their capacity to manage their emotions and react appropriately to stressful situations. It was a gradual shift towards a greater sense of self-assurance and a decreased sense of hopelessness[19]. Following the intervention, the experimental group demonstrated significant improvements in their performance. The number of those who reported feeling empowered, self-assured, and optimistic increased significantly. Over the course of time, the GAD-7 scores demonstrated a reduction in the severity of anxious symptoms. The findings of the WHO-5 Well-being Index revealed an increase in mental health via greater feelings of energy, cheerfulness, and tranquilly. This is comparable to the findings of the previous section.

2. Academic Performance Outcomes

As a result of the experimental group (EG) demonstrating a statistically significant rise in grade point average ($t = 2.97$), there is substantial evidence concerning the connection between improved mental health and academic accomplishment. Additionally, there was a low level of variability seen in this group, which suggests that the MBSR intervention was consistently effective[20]. In addition, the control group (CG) had a marginal but statistically significant improvement in their grade point average ($t = 2.54$). This gain may have been brought about by external motivating factors or by an improved sense of academic

responsibility. However, as compared to the group who really participated in the trial, the improvement was not as significant. The findings presented here demonstrate that enhancing one's mental health, especially via the implementation of structured programs such as mindfulness, may have a positive impact on one's capacity to do well in academic institutions.

3. Insights from Experimental Group Interviews

70 percent of Mindfulness-Based Stress Reduction (MBSR) students reported having a positive experience and finding the mindfulness practices to be helpful in their day-to-day lives. Anxieties and stress were reduced by around 85 percent of the participants, and the participants' mental well-being was improved by approximately 75 percent. A majority of participants, namely sixty-five percent, said that the program enhanced their academic performance by enhancing their ability to concentrate and reducing their anxiety about examinations[21]. The program was generally well accepted, and ninety percent of participants would recommend it to others, despite the fact that some participants had difficulty with some activities (such as mindful eating).

4. Implications

Another piece of evidence that demonstrates the significance of students' mental health to their academic progress is provided by this study. Participating in an organised mental health program such as Mindfulness-Based Stress Reduction (MBSR) may provide a number of benefits, one of which is an improvement in academic performance. Any educational system that is going to be successful in the future need to consider the well-being and contentment of its students to be of the first importance.

CONCLUSION

This study examined the connection between students' emotional health and their academic performance using a twelve-week mindfulness-based stress reduction (MBSR) program as a case study. Participants in the Mindfulness-Based Stress Reduction (MBSR) program reported significant improvements in mental health, lower stress levels, and enhanced academic performance after completing the program. Even the control group showed an increase in performance, which is an intriguing finding. This would suggest that external variables, including students' degree of intrinsic drive or the atmosphere at their school, had a part in the result. In order to achieve the aim of boosting academic performance, the findings highlight the need of improving mental wellness. It is worth considering integrating mindfulness techniques and more extensive wellness programs into institutional support networks. Future studies should investigate the treatments' long-term effects, compare them to other approaches, and account for contextual characteristics like academic load and campus culture. In conclusion, the study's results suggest that raising awareness about the significance of students' mental health might boost their academic achievement.

REFERENCES

- [1] Swargiary, K., & Roy, K. (2023). *Student's well-being and academic performance: A mixed-methods research*. ResearchGate. <https://www.researchgate.net/publication/371081470>

- [2] Riglin, L., Petrides, K. V., Frederickson, N., & Rice, F. (2014). The relationship between emotional problems and subsequent school attainment: A meta-analysis. *Journal of Adolescence*, 37(8), 1291–1302. <https://doi.org/10.1016/j.adolescence.2014.07.006>
- [3] Bruffaerts, R., Mortier, P., Kiekens, G., Auerbach, R. P., Cuijpers, P., Demyttenaere, K., ... & Kessler, R. C. (2018). Mental health problems in college freshmen: Prevalence and academic functioning. *Journal of Affective Disorders*, 225, 97–103. <https://doi.org/10.1016/j.jad.2017.07.044>
- [4] Bostani, M., Nadri, M., & Nasab, A. Z. (2014). A study of the relationship between mental health and academic performance of students of the Islamic Azad University Ahvaz branch. *Procedia - Social and Behavioral Sciences*, 116, 163–165. <https://doi.org/10.1016/j.sbspro.2014.01.180>
- [5] Pascoe, M. C., Hetrick, S. E., & Parker, A. G. (2020). The impact of stress on students in secondary school and higher education. *International Journal of Adolescence and Youth*, 25(1), 104–112. <https://doi.org/10.1080/02673843.2019.1596823>
- [6] Conley, C. S., Durlak, J. A., & Dickson, D. A. (2013). An evaluative review of outcome research on universal mental health promotion and prevention programs for higher education students. *Journal of American College Health*, 61(5), 286–301. <https://doi.org/10.1080/07448481.2013.802237>
- [7] Saleh, D., Camart, N., & Romo, L. (2017). Predictors of stress in college students. *Frontiers in Psychology*, 8, 19. <https://doi.org/10.3389/fpsyg.2017.00019>
- [8] Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. *The B.E. Journal of Economic Analysis & Policy*, 9(1), 1–35. <https://doi.org/10.2202/1935-1682.2191>
- [9] Suldo, S. M., Thalji, A., & Ferron, J. (2011). Longitudinal academic outcomes predicted by early adolescents' subjective well-being, psychopathology, and mental health status. *School Psychology Quarterly*, 26(2), 93–105. <https://doi.org/10.1037/a0023047>
- [10] Regehr, C., Glancy, D., & Pitts, A. (2013). Interventions to reduce stress in university students: A review and meta-analysis. *Journal of Affective Disorders*, 148(1), 1–11. <https://doi.org/10.1016/j.jad.2012.11.026>
- [11] Adler, A. (2017). Well-being and academic achievement: Towards a new evidence-based educational paradigm. In M. A. White, G. R. Slemp, & A. S. Murray (Eds.), *Future directions in well-being: Education, organizations and policy*(pp. 203–208). Springer.
- [12] Alatartseva, E., & Barysheva, G. (2015). Well-being: Subjective and objective aspects. *Procedia-Social and Behavioral Sciences*, 166, 36–42.
- [13] Álvarez-Bueno, C., Pesse, C., Cavero-Redondo, I., Sánchez-López, M., Garrido-Miguel, M., & Martínez-Vizcaíno, V. (2017). Academic achievement and physical activity: A meta-analysis. *Pediatrics*, 140(6), e20171498.

- [14] Bailey, T. H., & Phillips, L. J. (2016). The influence of motivation and adaptation on students' subjective well-being, meaning in life and academic performance. *Higher Education Research & Development*, 35(2), 201–216.
- [15] Berger, C., Alcalay, L., Torretti, A., & Milicic, N. (2011). Socio-emotional well-being and academic achievement: Evidence from a multilevel approach. *Psicologia: Reflexao e Critica*, 24(2), 344-351.
- [16] Borenstein, M., Hedges, L. V., Higgins, J. P. T., & Rothstein, H. R. (2009). *Introduction to meta-analysis*. Wiley.
- [17] Chau, K., Kabuth, B., Causin-Brice, O., Delacour, Y., Richoux-Picard, C., Verdin, M., & Chau, N. (2016). Associations between school difficulties and health-related problems and risky behaviours in early adolescence: A cross-sectional study in middle-school adolescents in France. *Psychiatry Research*, 244, 1.
- [18] Demirci, İ. (2020). School engagement and well-being in adolescents: Mediating roles of hope and social competence. *Child Indicators Research*, 13, 1573–1595. <https://doi.org/10.1007/s12187-020-09722-y>.
- [19] Diener, E. (2009). Assessing subjective well-being: Progresses and opportunities. In E. Diener (Ed.), *Assessing wellbeing: The collected works Ed Diener*. Springer.
- [20] Gräbel, B. F. (2017). *The relationship between wellbeing and academic achievement: A systematic review*. (unpublished Master's thesis). University of Twente.
- [21] Huang, C. (2013). Academic achievement and subsequent depression: A meta-analysis of longitudinal studies. *Journal of Child and Family Studies*, 24, 434–442.