

MINDFULNESS PROGRAM FOR ANXIETY REDUCTION IN TEACHERS AT AMERICAN COLLEGE TECHNOLOGICAL INSTITUTE WITH UNIVERSITY SUPERIOR STATUS

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ABSTRACT

The present study addresses the topic of mindfulness as a strategy for reducing anxiety in teachers. The objective focuses on evaluating the impact of mindfulness on anxiety reduction among teachers at the American College Technological Institute with University Superior Status, May 2024. A quantitative, experimental approach was established, applied to a sample of 34 teachers who were assigned to the control and experimental groups through random sampling and subjected to the psychometric instruments IDARE and BAI. The results show that the values of the instruments are below 0.05, indicating significant differences in anxiety levels before and after the intervention. In particular, it is observed that anxiety levels are considerably lower after the intervention in both questionnaires. It is concluded that mindfulness has great potential to reduce anxiety in the institute's teachers; however, clinical challenges persist. Therefore, it is recommended to create a program that integrates various techniques to enhance emotional well-being and the educational environment.

Keywords: impact, Anxiety, intervention, mindfulness, teacher.

INTRODUCTION

This article focused on the topic of anxiety and mindfulness as a therapeutic strategy, taking into consideration that anxiety is a normal reaction to the presence of stress, and is characterized by feelings of tension, anguish and physical changes associated mainly with increased blood pressure. According to the World Health Organization (WHO), anxiety is one of the most frequent mental disorders globally, in 2019 it affected the lives of 301 million individuals, which is why it is considered a pathology that affects approximately 4% of the world's population. In the Ecuadorian context, 20% of children and adolescents have symptoms associated with depression and/or anxiety and within this group, 10% have considered the idea of suicide. ^{(1,2)(3)(4)}

On the other hand, mindfulness is defined as a cognitive, procedural and/or attitudinal practice, based on meditation and attention in the present moment, which is why it constitutes a model of life with full attention in the present, accepting the reality that surrounds the individual. Its application suggests benefits in any context where it is developed, since it promotes the regulation of emotions, decreases stress and anxiety levels, increases resilience, develops greater full awareness, fosters positive attitudes in the face of any stimulus, improves conflict management, allows the development of empathy and compassion and finally, brings with it benefits to physical health. ^{(5,6)(7,8)}

In the context of the teacher, within the educational environment, he or she is susceptible to developing psychological alterations associated with the exercise of the profession, which are related to lack of motivation, alterations in behavior and health problems that lead to desertion of teaching practice. Among the factors associated with the development of disorders such as stress and anxiety, are; the overload of hours and work, lack

of recognition within the institution, disciplinary problems of the students, lack of time regulation, lack of resources within the facilities and insufficient pedagogical requirements. To counteract the problems associated with stress, anxiety, difficulty concentrating and depression, techniques are used that are based on the liberation of the mind from mindfulness. ^{(9,10,11)(12,13,14,15)}

Therefore, the objective of this study was focused on evaluating the impact of mindfulness on the anxiety of teachers at the American College of Higher Technological Institute with Higher University status, May 2024, taking into account that the affirmative hypothesis corresponds to significant differences between the anxiety levels of the experimental group comparing the pre-test and post-test and with respect to the control group.

METHODOLOGY

The research had a quantitative, analytical, experimental and longitudinal approach, taking into consideration 34 professors from the American College of Higher Technology with the status of Higher University under 910eve lof910 and 910eve lof910 910eve lof, to whom the State-Trait Anxiety Inventory (IDARE) psychometric reagent was applied. ⁽¹⁶⁾*Beck Anxiety Inventory* (BAI), including from a deliberate or randomized sampling of the individuals who made up the experimental and control group, after the signing of the informed consent. ⁽¹⁷⁾

The study was developed in five phases, the first corresponded to the interview and signing of the informed consent of the participants, in the second 910eve the randomization process of the participants was carried out, in the third 910eve the pretest was applied. Later in the fourth 910eve, the intervention was carried out, which lasted four weeks with an activity of 120 minutes in each of them.

During the first 910eve I, psychoeducation was carried out about mindfulness and the benefits obtained through its application, within the activities carried out, integration exercises were carried out, the validity and importance of mindfulness was established and participants were allowed to find a comfortable space and position, finally a perception exercise was carried out. In the second 910eve I, which aimed to discover how stress is found in the body and how the senses allow you to stay in mindfulness; During it, a group exercise of trust was carried out and 910eve lo was released, then a second perception exercise was carried out and awareness of the experiences associated with self-judgment was raised.

The third 910eve I had the purpose of continuing with the 910eve lof of emotions and mindfulness through sensory pathways, during this 910eve I we worked 910eve lof the thoughts of the participants, mindful-eating was developed and the realization of a visualization exercise was proposed. Finally, during the fourth 910eve I, the process of mindfulness towards the bodily sensations of the 910eve lo began, a psychoeducation 910eve I was developed about gratitude towards oneself, strengthening the closure of the program and consolidating the 910eve provided for its use in the future.

In relation to statistics, it was carried out in a descriptive way to establish the distribution of participants in the control and experimental groups, according to gender, 910eve lof education and residence. Likewise, descriptive statistics were used to analyze the application of the information collection instruments, and were plotted from mean and standard deviation. On the other hand, regarding inferential statistics, the T test and Wilcoxon test were used.

RESULTS

The main results associated with the sociodemographic characteristics of the study participants are presented below, considering that the age of the control group is distributed between 25-45 years, with an average of between 30-35 years, while, in the experimental group, there is a distribution of between 21-51 years and more frequently between 25-30 years.

Table 1. Sociodemographic characteristics of study participants

Gender	Control group		Experimental group	
	Frequency	Percentage	Frequency	Percentage
Male	8	50	10	55,56
Female	8	50	8	44,44
Level of education				
Third level	9	56,25	12	66,67
Fourth level	7	43,75	6	33,33
Residence				
Urban	16	100	6	33,33
Rural	0	0	4	22,22

Source: Authors.

Table 1 shows the distribution of participants in both the control group and the experimental group, where a higher frequency of male participants (n=18) compared to female participants (n=16) was observed. On the other hand, a greater number of participants with a third level of education was established, in the control group (n=9) and in the experimental group (n=12); Finally, a higher frequency of individuals residing in the urban area (n=16) was observed in the control group and (n=6) in the experimental group.

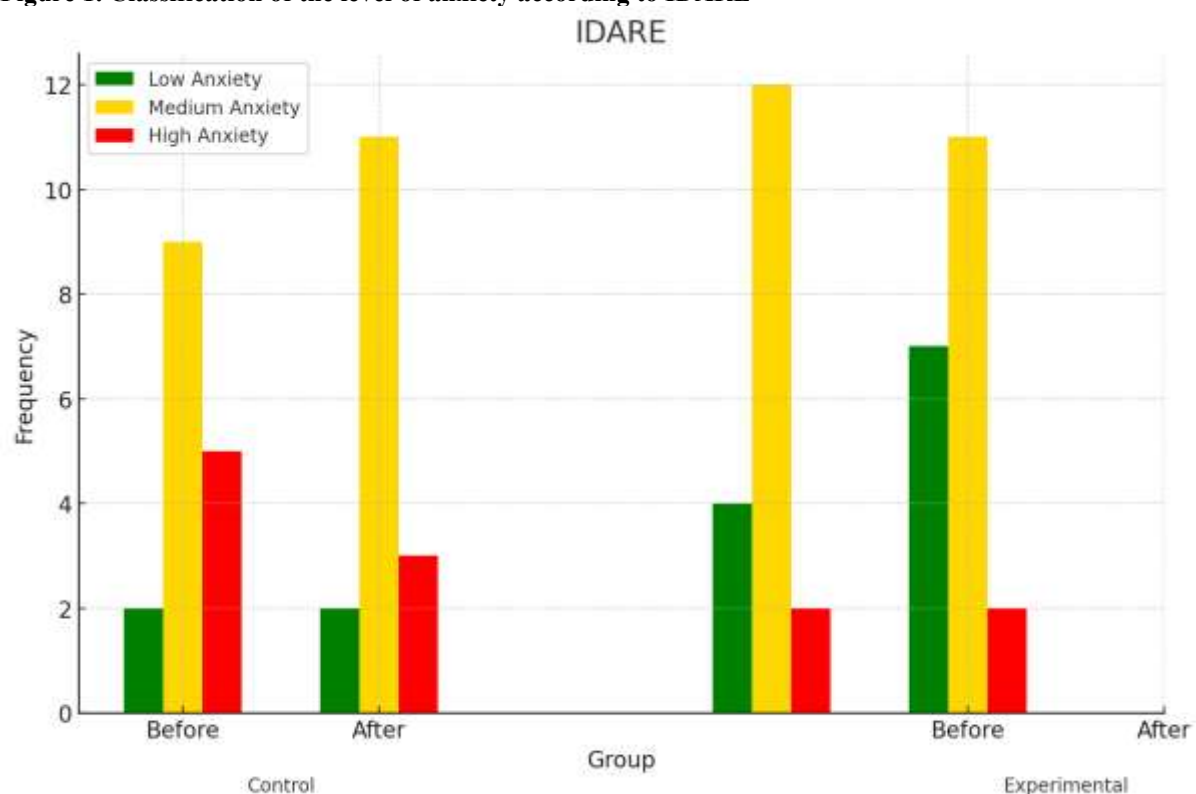
Table 2. Result of the IDARE and BAI psychometric reagents

Experimental Group	Punctuation IDARE (pretest)	Punctuation BAI (pretest)	Punctuation IDARE (posttest)	Punctuation BAI (posttest)
Average	35.500	13.889	32.222	7.944
Standard deviation	7.618	13.664	7.975	7.930
Control Group	Punctuation IDARE (pretest)	Punctuation BAI (pretest)	Punctuation IDARE (posttest)	Punctuation BAI (posttest)
Average	40.438	13.500	40	12.375
Standard deviation	11.302	10.244	9.302	9.408

Source: Authors.

Table 2 shows the results of the IDARE and BAI psychometric items, showing differences (decrease in means and standard deviation in both items in the experimental group) after the intervention, and a less sustained decrease in the control group.

Figure 1. Classification of the level of anxiety according to IDARE

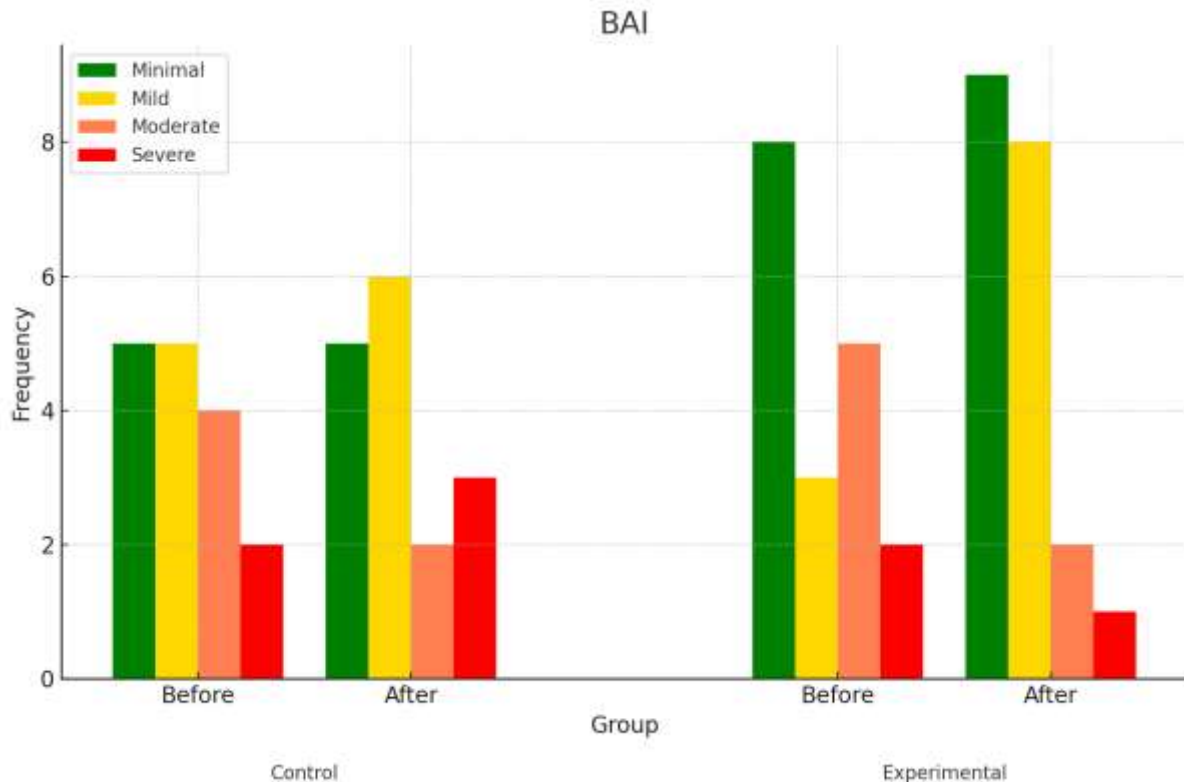


Source: Authors.

Figure 1 shows the classification of the level of anxiety according to the IDARE psychometric reagent, where it was identified that, in the control group, there is a higher frequency of collaborators with a medium level of anxiety in the pre-test (n=9) and in the post-test group (n=11); however, a little sustained decrease in the level of high anxiety from (n=5) was identified in the pretest to (n=3) in the posttest. On the contrary, in the experimental group, there is a decrease in the level of high anxiety (n=2) in pretest a (n=0) in posttest, as well as an increase in individuals with low anxiety of (n=4) in pretest a (n=7) in posttest, and finally, a little sustained decrease in the

level of medium anxiety (n=12) in pretest a (n=11) in posttest, which allows evidence through descriptive statistics of changes in the results associated with the proposed intervention.

Figure 2. Classification of the level of anxiety according to BAI



Source: Authors.

Figure 2 shows the classification of the level of anxiety according to the BAI psychometric reagent, which identifies that there are no significant changes between the pretest and posttest of the control group, while in the experimental group, a decrease in the severe level of anxiety is observed from (n=2) in the pretest to (n=1) in the posttest. Similarly, a sustained decrease in the moderate level of anxiety of (n=5) in pretest a (n=0) in posttest, and finally, a sustained increase in the level of mild anxiety (n=3) in pretest a (n=8) in posttest, which allows evidence, through descriptive statistics, changes in the results associated with the proposed intervention. Next, the normality and homogeneity of each of the groups was established based on the Shapiro-Wilk test, the results of which are shown in Table 3:

Table 3. the Shapiro-Wilk Normality Test

Group	Punctuation	W Statistic	p-value
Control (IDARE)	pretest	0.907	0.099
	Post-test	0.939	0.334
Experimental (IDARE)	pretest	0.962	0.632
	Post-test	0.936	0.251
Control (BAI)	pretest	0.858	0.018
	Post-test	0.839	0.009
Experimental (BAI)	pretest	0.855	0.010
	Post-test	0.862	0.013

Source: Authors.

Table 3 shows the Shapiro-Wilk Normality test for each of the groups, showing that the p value is greater than 0.05, which shows a normal distribution in the groups where the IDARE reagent was applied. On the contrary, the p value is less than 0.05 in the groups in which the BAI reagent was used, demonstrating that they do not follow a normal distribution.

Table 4. Levene Homogeneity Analysis

Punctuation	W Statistic	p-value
IDARE (pretest)	0.815	0.373
IDARE (posttest)	0.049	0.827
BAI (pretest)	0.895	0.351
BAI (posttest)	0.125	0.728

Source: Authors.

Table 4 shows the Levene Homogeneity analysis, where it was evidenced that the values corresponding to the IDARE reagent are greater than 0.05, that is, they have a normal and homogeneous distribution, so the T test was applied. On the contrary, when analyzing the table, it was established that one of the values of the BAI reagent is not greater than 0.05 so they do not follow a normal distribution and the application of the non-parametric Wilcoxon test was considered.

Next, the parametric tests (T-test) and non-parametric test (Wilcoxon test) were implemented in each of the groups analyzed:

Table 5. Parametric and non-parametric tests of IDARE and BAI

Experimental group		
Test Type	Statistical (t/u)	P value
t-test for IDARE	1.972	0.033
Wilcoxon Test for BAI	116.500	0.001
Control group		
Test Type	Statistical (t/u)	p-value
t-test for IDARE	0.410	0.688
Wilcoxon Test for BAI	17.000	0.511

Source: Authors.

Table 5 shows that, for the experimental group, the p-values obtained in the IDARE and BAI questionnaires are less than 0.05, indicating significant differences in anxiety levels before and after the intervention. In particular, it is observed that anxiety levels are considerably lower after the intervention in both questionnaires. This suggests that the mindfulness intervention was effective in significantly reducing anxiety in the experimental group, thus supporting the hypothesis that this practice is beneficial in mitigating anxiety.

In contrast, in the control group, the p-values on the IDARE and BAI questionnaires are greater than 0.05, indicating the absence of significant differences in anxiety levels before and after the study period. This implies that anxiety levels remained stable in both questionnaires. Therefore, it can be concluded that, without the mindfulness intervention, no significant changes in anxiety levels were observed in the control group.

DISCUSSION

The results obtained in the study allowed us to establish that the intervention had an effect on the reduction of anxiety levels; when applying the t-test to the IDARE reagent, it revealed a p-value of less than 0.05 ($p=0.033$), and similarly, the Wilcoxon test for the BAI with a p-value of less than 0.05 ($p=0.001$). The differences between the IDARE and BAI reagents can be explained by the differences in sensitivity and specificity of each of them, since the former focuses on the changes produced by the intervention, while in the second case, it focuses on anxiety as a physical symptom

As established in the study by Frank et al. and Hülshager et al. where the practice of mindfulness allows the improvement of self-regulation and reduction of mental load. In this order of ideas, Jennings et al. implemented a mindfulness program that, after the intervention, teachers showed an increase in well-being and a decrease in signs and symptoms associated with burnout syndrome, in addition to allowing them to better manage situations that cause stress on a daily basis, also having greater self-control and better management of stressful situations in their daily lives.⁽¹⁸⁾⁽¹⁹⁾⁽²⁰⁾

Similarly, a meta-analysis by Khoury et al. It concluded that mindfulness-based stress reduction (MBSR) is effective in minimizing the characteristics of anxiety, stress, and depression in various populations, also evidencing that the size of this decrease was moderate with $d=0.55$. Finally, other studies such as that of Grossman et al. It showed that the participants of the mindfulness program had a significant reduction in anxiety and stress in relation to the control group.⁽²¹⁾⁽²²⁾

CONCLUSIONS

The practice of mindfulness has a significant potential in reducing the anxiety and stress of teachers at the American College of Technology, with the status of Higher University Student, there are still challenges associated mainly with the associated clinical characteristics. Similarly, the absence of significant differences in the BAI scale suggests complementing mindfulness interventions with strategies related to the presence of clinical symptoms. Therefore, it is suggested to integrate approaches, where the benefits of mindfulness are combined with other techniques and therapies, thus creating a holistic and integrative program that enhances the emotional well-being of each of the teachers and favors the educational environment towards a healthy environment with greater productivity.

BIBLIOGRAPHIC REFERENCES

1. American Psychological Association. Ansiedad. [Online].; 2022. Available from: <https://www.psychiatry.org/patients-families/la-salud-mental/ansiedad>.
2. National Cancer Institute. anxiety. [Online].; 2023. Available from: <https://www.cancer.gov/espanol/publicaciones/diccionarios/diccionario-cancer/def/ansiedad>.
3. World Health Organization. Anxiety disorders. [Online].; 2023. Available from: <https://www.who.int/es/news-room/fact-sheets/detail/anxiety-disorders>.
4. Ministry of Public Health. This April 7 is World Health Day, with the theme "Depression: Let's Talk". [Online].; 2021. Available from: <https://www.salud.gob.ec/este-7-de-abril-se-celebra-el-dia-mundial-de-la-salud-con-el-tema-depresion-hablemos/>.
5. Hanh TN. Nothing to do, nowhere to go: Zenith; 2019.
6. Molina L. Mindfulness: a procedure towards cognitive, attitudinal and procedural well-being.a concept, a psychological process and a practice. Hekademos Educational Journal. 2022; 32(15): p. 14-22. <https://www.hekademos.com/index.php/hekademos/article/view/63/49>
7. Rodríguez J, Rodríguez M. Emotional well-being of employees: benefits of mindfulness. Latin Science. 2023; 7(3): p. 8099-8111. https://doi.org/10.37811/cl_rcm.v7i3.6801
8. Bonastre DM. The impact of Mindfulness, a promising solution for stress and anxiety in future students of CREP Teacher Training, 2023. LATAM Latin American Journal of Social Sciences and Humanities. 2023; 4(6): p. 1496 – 1509. <https://doi.org/10.56712/latam.v4i6.1542>
9. Cabezas DA, Martínez AdR. Teacher stress and organizational risk factors: a study compared by sex. Latin Science. 2024; 8(2): p. 6425-6449. https://doi.org/10.37811/cl_rcm.v8i2.11061
10. Mendes LT, Campelo E, Pinheiro CA, Pires I, Vasconcelos G. Stress and depression in teachers of a public educational institution. Global Nursing. 2020; 19(57). <https://dx.doi.org/eglobal.19.1.383201>
11. Rodríguez VE, Carreño D, Quijije P, Aria AE. Stress, anxiety and work performance in university teachers. South Florida Journal of Development. 2023; 4(9): p. 3047–3062. <https://doi.org/10.46932/sfjdv4n8-009>
12. Benavides LDC, Benavides AL. The application of Mindfulness to improve teaching and learning strategies in higher education. Horizontes Journal of Research in Education Sciences. 2021; 5(21). <https://doi.org/10.33996/revistahorizontes.v5i21.297>
13. Castro M, Allar A, Lobos M, González E, Herrera G. Anxiety and stress management: how to cope with them through different techniques. Confluencia Magazine. 2021; 4(1): p. 110-115. <https://revistas.udd.cl/index.php/confluencia/article/view/569/521>
14. Goilean C, Gracia F, Tomás I, Subirats M. Mindfulness in the field of work and organizations. Psychologist's Papers. 2021; 41(2). <https://dx.doi.org/10.23923/pap.psicol2020.2929>
15. Galarza EI, Reivan GG. Study of the scientificity and effectiveness of the Mindfulness technique. MQRInvestigate. 2023; 7(4): p. 879–896. <https://doi.org/10.56048/MQR20225.7.4.2023.879-896>
16. Charles S, Díaz R. IDARE: Anxiety Inventory: Trait and State – Manual and Instruction Mexico: Modern Manual; 1975.
17. Aaron B, Epstein N, Brown G, Steer R. Beck Anxiety Inventory. In: Rush AJ, editor. *Cognitive Therapy of Depression*. New York: Guilford Press; 1988 New York: Guilford Press; 1988.

18. Frank J, Reibel D, Broderick P, Cantrell T, Metz S. The effectiveness of mindfulness-based stress reduction on educator stress and well-being: Results from a pilot study. *Mindfulness*. 2015; 64(2): p. 208–216. <https://doi.org/10.1007/s12671-013-0246-2>
19. Hülshager U, Alberts H, Feinholdt A, Lang J. Benefits of mindfulness at work: The role of mindfulness in emotion regulation, emotional exhaustion, and job satisfaction. *Journal of Applied Psychology*. 2013; 98(2): p. 310–325. <https://doi.org/10.1037/a0031313>
20. Jennings P, Frank J, Snowberg K, Coccia M, Greenberg , M. Improving classroom learning environments by Cultivating Awareness and Resilience in Education (CARE): Results of a randomized controlled trial. *School Psychology Quarterly*. 2013; 28(4). <https://doi.org/10.1037/spq0000035>
21. Khoury B, Lecomte T, Fortin G, Masse M, Therien P, Bouchard V, et al. Mindfulness-based therapy: A comprehensive meta-analysis. *Clinical Psychology Review*. 2015; 33(6): p. 763-771. <https://doi.org/10.1016/j.cpr.2013.05.005>
22. Grossman P, Niemann L, Schmidt S, Walach H. Mindfulness-based stress reduction and health benefits: A meta-analysis. *Journal of Psychosomatic Research*. 2004; 57(1): p. 35-43. [https://doi.org/10.1016/S0022-3999\(03\)00573-7](https://doi.org/10.1016/S0022-3999(03)00573-7)