



Effect of Mindfulness Practices on Anxiety and Attention Span: - A Questionnaire Based Study Among Undergraduate Students.

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ABSTRACT

This study aims to identify whether the use of mindfulness practice every day, creates a significant difference in anxiety and attention span of undergraduate students. Under mindfulness, two types of treatments were practiced namely Silence and Chanting 'OM'. This experiment was conducted for twenty-one days; 15 minutes every day. The sample comprised of 31 boys & 39 girls. The research concluded that the use of mindfulness practices caused a general decrease in anxiety level and increase in attention span.

Key Words: Mindfulness, Attention span, Anxiety

Introduction:

Mindfulness is a mental state achieved by focusing one's awareness on the present moment while calmly acknowledging and accepting one's feeling, thoughts, and bodily sensations.

During Covid-19 classroom teaching was switched to online teaching which affects students' interaction and socialization with each other. Moreover, during this period, college students faced more mental challenges, including academic pressure, employment pressure, and family pressure. It seems that attention span is lowered due to excessive use of gadgets and online teaching. Also, after normalcy, there is still decline in students' academic achievements.

The purpose of this study to find the impact of mindfulness practices on anxiety & attention span in undergraduate students. The anxiety, which mainly affect the mental state of well-being of a student. Thus, the objective of this research is also, to understand the anxiety and attention span and its coping mechanism with the help of a mindfulness practices.

Materials and Methods:

- Appropriate permission from competent authority for conducting study was obtained.
- It is proposed to conduct the study with the help of the Psychology department.
- Appropriate consent was taken from every participant before joining this camp.
- Under mindfulness, two types of treatments were practiced namely Silene and Chanting 'OM' and this experiment was conducted for 15 minutes every day.
- Initially practice sessions were conducted for the participants by a well-known resource person.
- Every day, in the morning from 7.30 a.m. to 7.50 a.m. sessions were held and therefore students had 10 minutes' relaxation time before starting their regular lectures.
- These sessions were practiced for 21 days including holidays.
- In this study participants were seventy(Boys = 31 , Girls = 39).
- Mindfulness practice was observed in terms of pulse rate.
- Participants included in this study, attended all the sessions regularly.
- Each participant was responded to two questionnaires.

- (i) **First questionnaire:** questions pertaining to demographic variables & opinion about meditation.
- (ii) **Second questionnaire:** questions pertaining to psychological test. This data was collected for pre and post treatment.
- Anxiety was measured with standard psychological test and Attention span was measured with the help of Psycho Motor Ability test.

• **The Data Analysis is done using R software.**

• **Statistical tools:** (i) Correlation analysis (ii) Non-Parametric test.

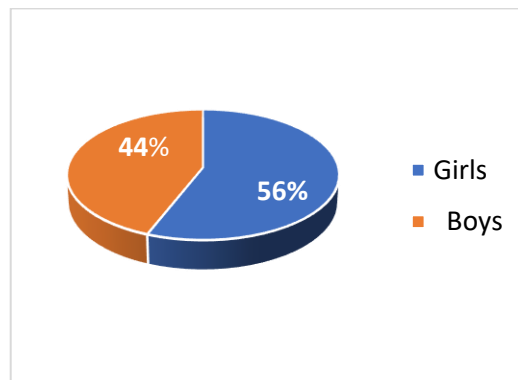
Objectives:

- (1) To gain students' awareness and choices about the role in meditation.
- (2) To study the impact of mindfulness practices on anxiety in undergraduate students.
- (3) To study the impact of mindfulness practices on attention span in undergraduate students.
- (4) To check whether there is a significant difference between pre and post mindfulness practices with respect to anxiety and attention span in undergraduate students.

Results and Discussion:

(1) To gain students' awareness and choices about the role in meditation.

i) Gender

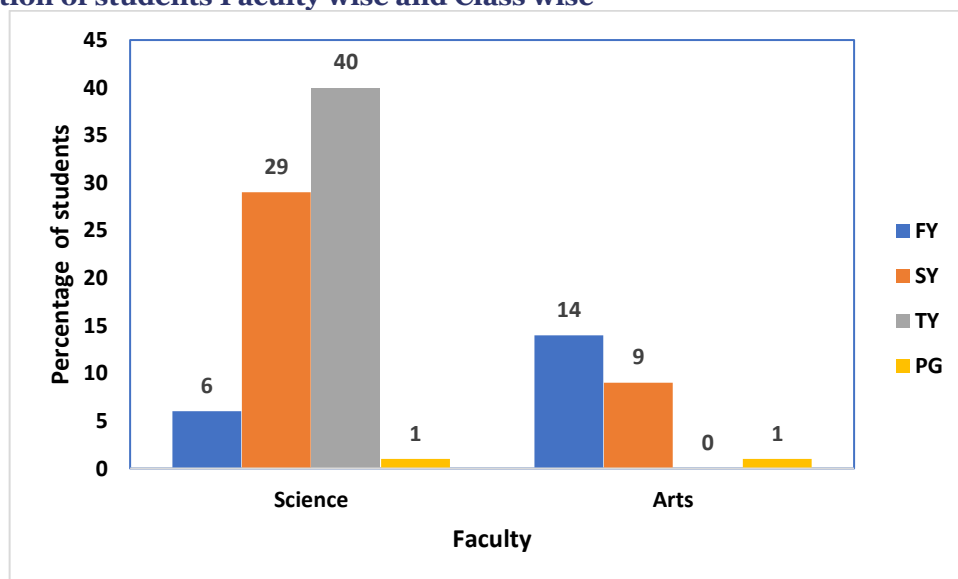


Graph 1: Gender wise distribution of students

Graph 1 shows that:

In present study, 56% were girls and 44% were boys. Due to awareness, Girls' were more interested in this study as compared to boys.

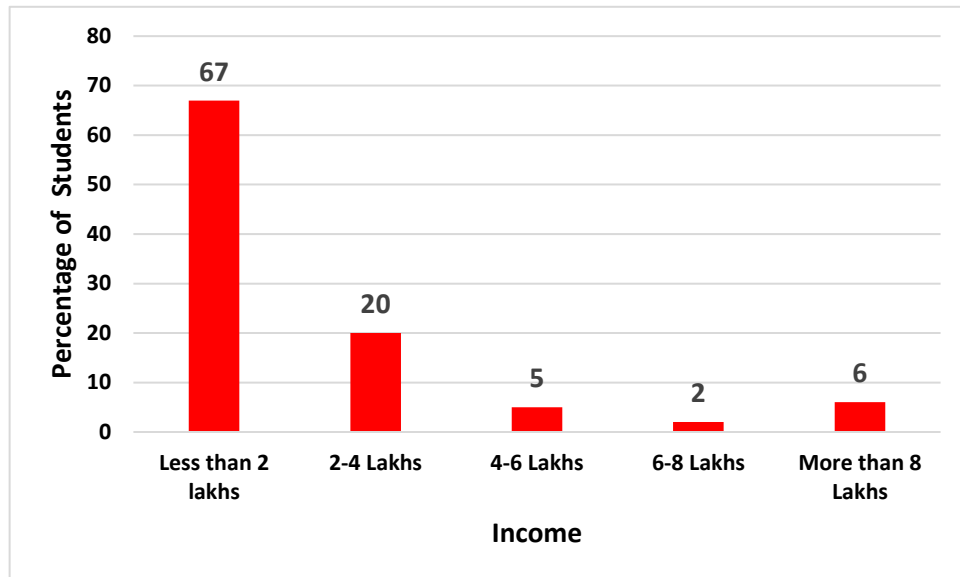
ii) Distribution of students Faculty wise and Class wise



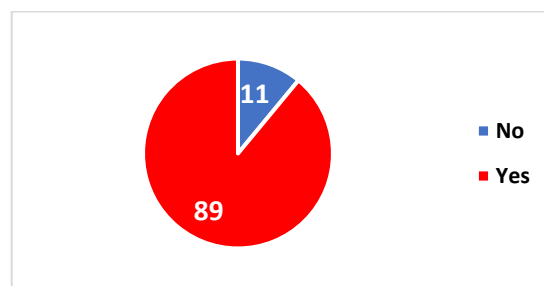
Graph 2: Percentage of students Faculty wise and Class wise

Graph 2 shows that:

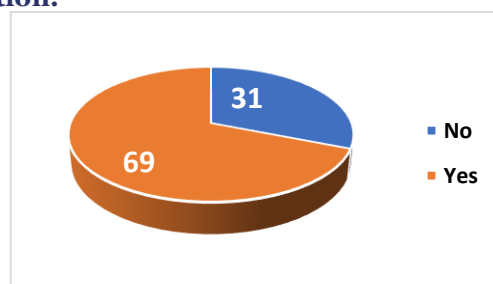
In present study, 76% of students were from Science faculty, 24% of students were from Arts faculty and no participation were from Commerce faculty. 20% of students were from FY class, 38% of students were from SY class, 40% of students were from TY class and 2% students from PG class.

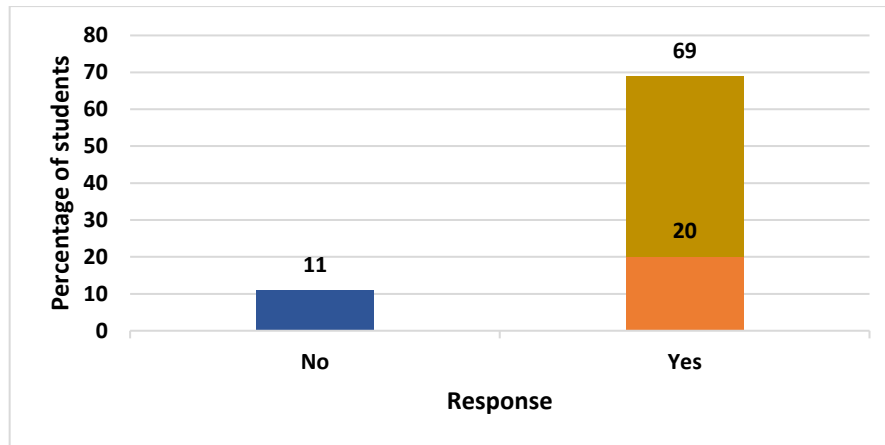
iii) Income**Graph 3: Annual income of the family****Graph 3 shows that:**

The maximum number of students (67%) for the lowest income group of “<2 lakhs” indicates students coming from economically weaker section are more in numbers. There are 20% of students whose family income is ranged between 2 lakhs and 4 lakhs whereas 13% of students and their families were from more than 4 lakhs income group.

(2) To study the student’s opinion about Meditation**i) Awareness about meditation****Graph 4: Are you aware about meditation?****Graph 4 shows that:**

In present study, 89% of students have awareness about meditation whereas 11% of students do not have awareness about meditation. Thus, we can say that majority of the students have awareness about meditation.

ii) Students Practice Meditation.**Graph 5: Percentage of students Practice Meditation**

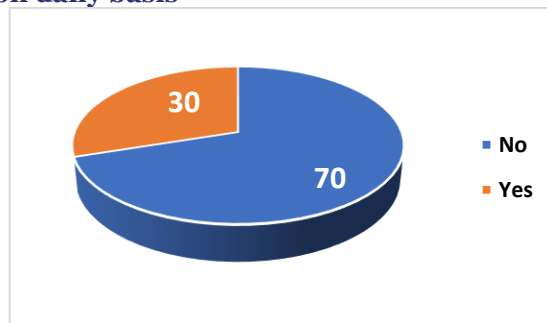


Graph 6: Percentage of students having awareness as well as Practice Meditation

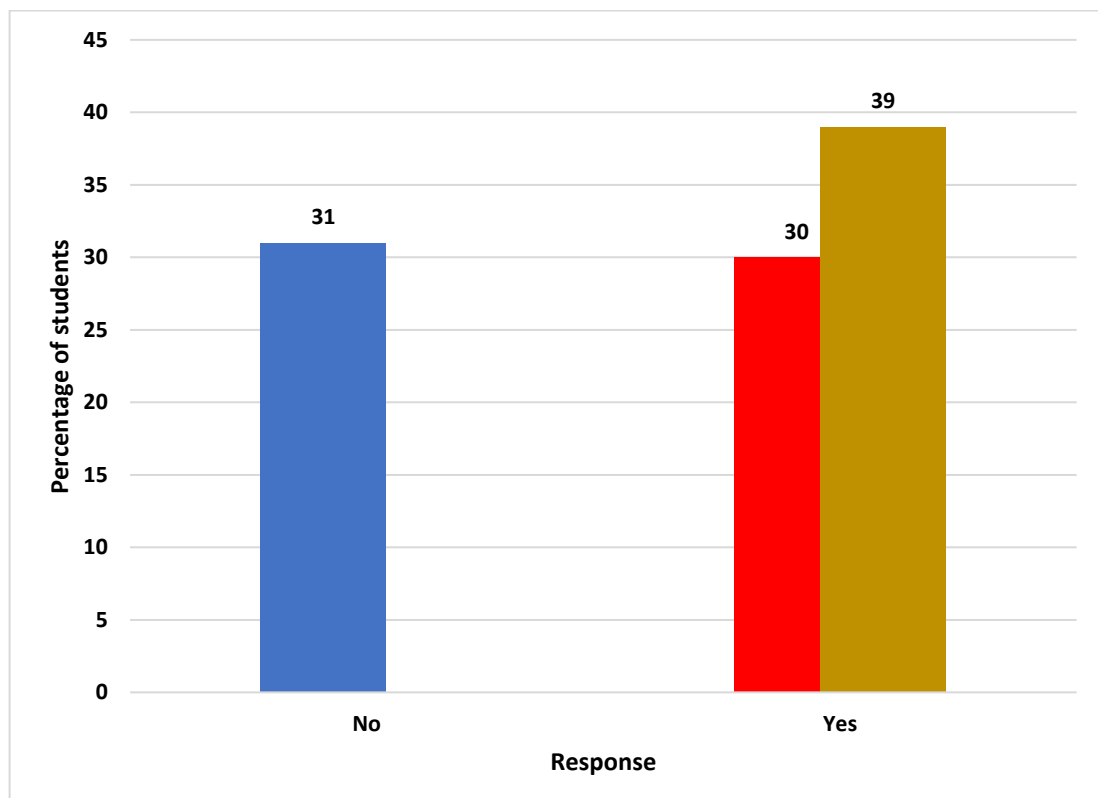
Graph 5 and Graph 6 show that:

In present study, 69 % of students not only aware but also practice meditation. Out of 89% students who have awareness, 69% students practice meditation whereas 20% doesn't do so. Thus, it reveals more than 50% students do the meditation.

iii) Practicing meditation on daily basis



Graph 7: Percentage of students Practice Meditation on daily basis.



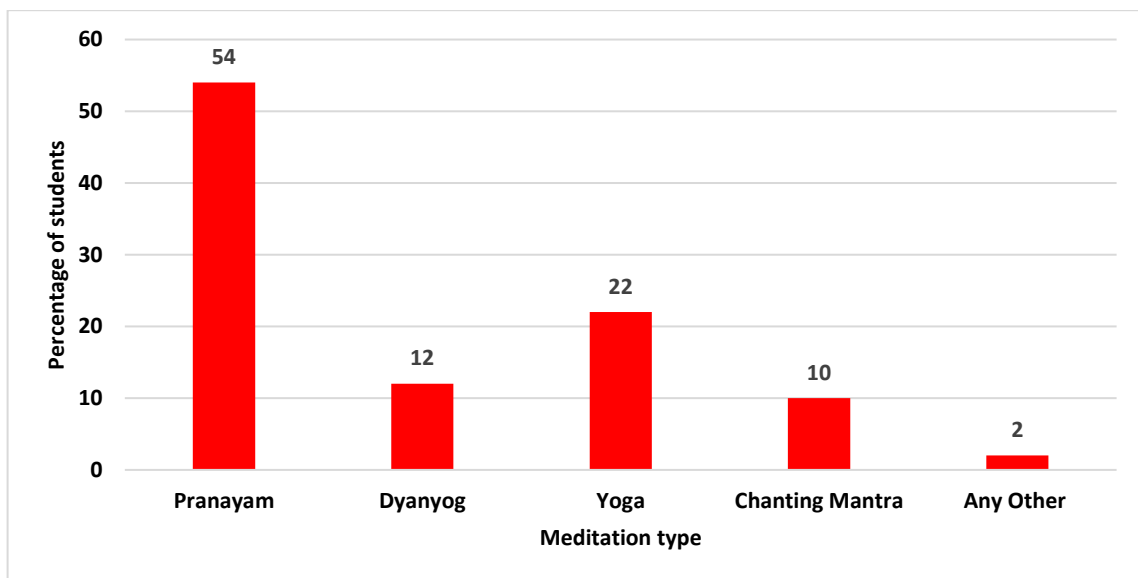
Graph 8: Percentage of students Practice Meditation on daily basis.

Graph 7 and Graph 8 show that:

In present study, 30 % of students do meditation on daily basis. Out of 69% students who practice meditation, 30% students practice meditation on daily basis whereas remaining 39% doesn't practice meditation daily basis. Thus, it reveals 30% students do the meditation on daily basis whereas others do so whenever they get time.

iv) Type of meditation students practiced.**Table 1: Which type of meditation did you practice?**

Type of Meditation	Percentage of Students
Pranayam	54
Dyanyog	12
Yoga	22
Chanting Mantra	10
Any Other	2
Total	100

**Graph 9: Meditation type****Table 1 and Graph 9 show that:**

In present study, maximum number of students (54 %) practiced Pranayam, Yoga (22%), Dyanyog (12%), Chanting mantra (10%), any other (2%). Thus among the students Pranayam is the most common practice in meditation.

v) Reasons for doing meditation**Table 2: How do you see towards meditation?**

Reason	Percentage of Students
Mental	40
Spiritual	31
Physical	27
Overall health	02
Total	100

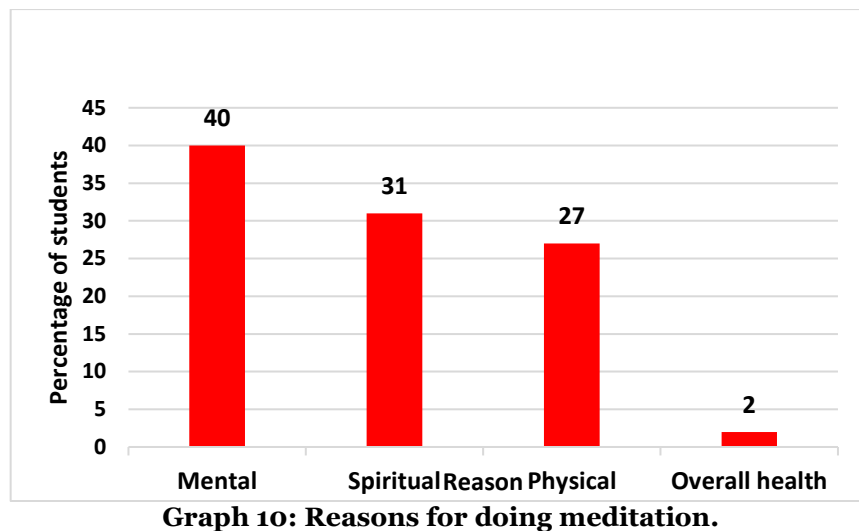


Table 2 and Graph 10 show that:

In present study, maximum number of students (40 %) practiced meditation for mental relief, Spiritual (31%), Physical (27%) and Overall health (2%). Thus during Covid-19 students might have experienced stressful environment, financial crises at home, or missing social life so to get relief from all these problems, overall 98% students were doing meditation for Mental, Spiritual and Physical purpose.

(2) To study the impact of mindfulness practices on anxiety in undergraduate students.

To assess the impact of mindfulness practices on anxiety, we have studied this in two sections:

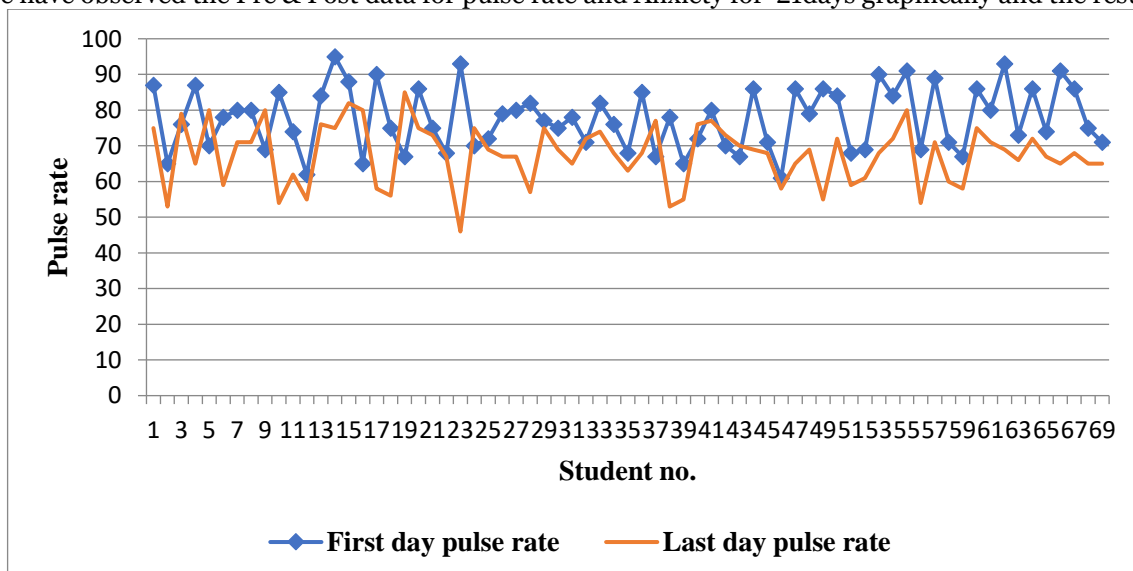
(i) We compare the Pre & Post data for pulse rate and Anxiety. The results are:

Table 3: Pre and Post Pulse rate & Anxiety

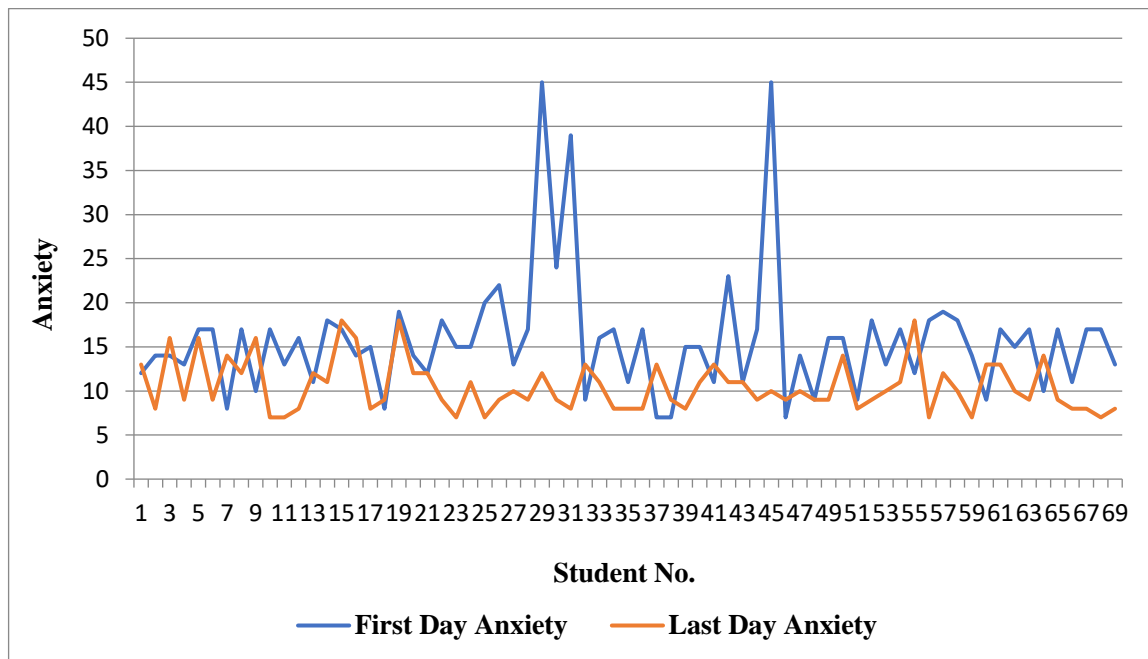
	Pre_Observation	Post_Observation
Average Pulse Rate	76.78	67.98
Average Anxiety	16	11

Table 3 shows that Average Pre_Pulse rate (=76.78) is greater than Post_pulse rate (= 67.98). Similarly Average Pre_Anxiety (=16) is greater than Post_Anxiety (= 11), which indicates mindfulness practices is an effective treatment on students for reducing pulse rate as well as Anxiety.

(ii) We have observed the Pre & Post data for pulse rate and Anxiety for 21 days graphically and the results are:



Graph 11: First day and Last day Pulse rate.



Graph 12: First day and Last day Anxiety.

Graph 11 & Graph 12 shows that, First day pulse rate & Anxiety is on higher side as compare to Last day pulse rate & Anxiety. Thus, mindfulness practices is an effective treatment from pre to post treatment in the overall sample.

(iii) There is a positive linear correlation between post pulse rate & Post Anxiety ($R^2 = 0.70889$, $p < 0.05$). So a significant impact of Mindfulness practices has been observed in our study.

(3) To study the impact of mindfulness practices on attention span in undergraduate students.

To assess the impact of mindfulness practices on attention span, we have studied this in two sections:

(i) We compare the Pre & Post data for pulse rate and attention span. The results are:

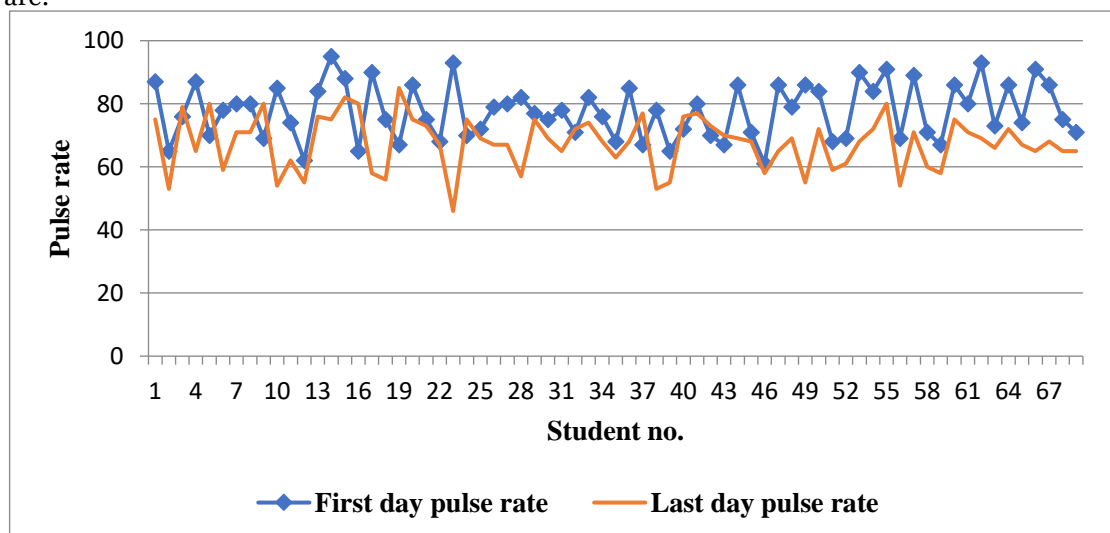
Table 4: Pre and Post Pulse rate & Attention span.

	Pre_Observation	Post_Observation
Average Pulse Rate	76.78	67.98
Average Attention span	429.86	519.75

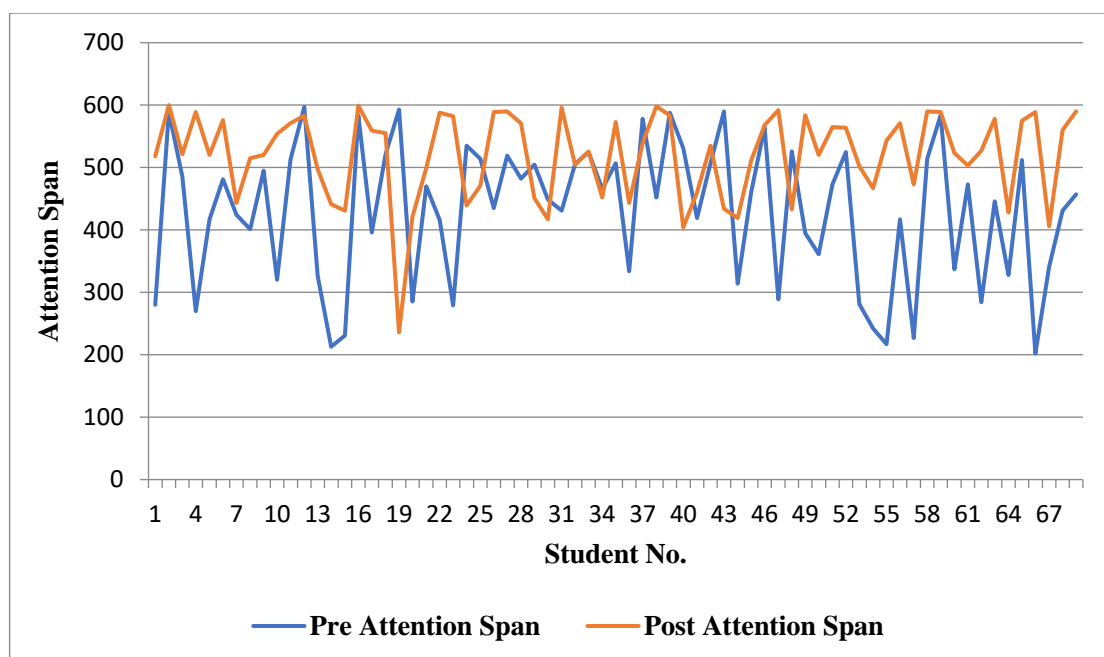
Table 4 shows that Average Pre_Pulse rate (=76.78) is greater than Post_pulse rate (= 67.98). Similarly,

Average Pre_Attention span (429.86) is lower than Post_Attention span (= 519.75), which indicates mindfulness practices is an effective tool on students for reducing pulse rate and increasing Attention span.

(ii) We have observed the Pre & Post data for pulse rate and Attention span for 21days graphically and the results are:



Graph 13: First day and Last day Pulse rate.



Graph 14: First day and Last day Attention span.

Graph 13 & Graph 14 show that, First day pulse rate is on higher side & Attention span is on lower side as compare to Last day pulse rate & Attention span. Thus, mindfulness practices is an effective treatment from pre to post treatment in the overall sample.

(iii) There is a negative linear correlation between post pulse rate & Attention span ($R^2 = -0.4709$, $p < 0.05$). So a significant impact of Mindfulness practices has been observed in our study.

(4) To check whether there is a significant difference between pre and post mindfulness practices with respect to anxiety and attention span in undergraduate students.

With the aim of identifying whether the use of mindfulness practices was effective on anxiety and attention span of UG students. The anxiety & attention span in the study before starting the experiment (i.e. first day; Pre observation) and after twenty-one days (i.e. last day; Post observation) was compared using Wilcoxon signed rank test.

(i) H_0 : Pre.Anxiety = Post.Anxiety

H_1 : Pre.Anxiety > Post.Anxiety

The result is ($W=1936.5$, $p\text{-value} = 5.45 \times 10^{-8} < 0.05$), reject H_0 . Thus Mindfulness practice is found to be an effective method in decreasing anxiety.

(ii) H_0 : Pre.Attention span = Post. Attention span

H_1 : Pre.Attention span < Post. Attention span

The result is ($W=321$, $p\text{-value} = 5.873 \times 10^{-8} < 0.05$), reject H_0 . Thus Mindfulness practice is found to be effective method in increasing attention span.

CONCLUSION:

- Girls' responses (56%) were more as compared to boys (44%).
- 76% of students were from Science faculty, 24% of students were from Arts faculty and no participation were from Commerce faculty. 20% of students were from FY class, 38% of students were from SY class, 40% of students were from TY class and 2% students from PG class.
- The maximum number of students (67%) for the lowest income group of "<2lakhs" indicates students coming from economically weaker section are more in numbers.
- There are 20% of students whose family income is ranged between 2 lakhs and 4 lakhs whereas 13% of students and their families were from more than 4 lakhs income group.
- 89% of students have awareness about meditation whereas 11% of students do not have awareness about meditation. Thus, we can say that majority of the students have awareness about meditation.
- Out of 89% students who have awareness, 69% students practice meditation whereas 20% doesn't do so. Thus, it reveals more than 50% students do the meditation.
Out of 69% students who practice meditation, 30% students practice meditation on daily basis whereas remaining 39% doesn't practice meditation on daily basis.
44% students do the meditation on daily basis whereas others do so whenever they get time.
- Maximum number of students (54 %) practiced Pranayam, Yoga (22%), Dyanyog (12%), Chanting mantra (10%), Any other (2%). Thus among the students Pranayam is the most common practice in meditation.

- Maximum number of students (40 %) practiced meditation for mental relief, Spiritual (31%), Physical (27%) and Overall health (2%).
- During Covid-19 students might have experiences Stressful environment, financial crises at home, or missing social life so to get relief from all these problems, overall 98% students were doing meditation for Mental, Spiritual and Physical purpose.
- Mindfulness practices is an effective treatment on students for reducing pulse rate as well as anxiety and for increasing attention span.
- A statistical test, Wilcoxon signed rank test confirm, there is a significant impact of mindfulness practices on anxiety and attention span.

Limitations:

- (1) Small participant numbers.
- (2) Mindfulness sessions were conducted on virtual platforms, so we were unable to address the environment available during meditation at home

Discussion:

The study suggests that mindfulness practices should be a part of Undergraduate student's routine in the college itself, as it increases their attention span and reduces anxiety which results in an improvement in the overall performance academically and health wise. This all will result into the development of employed skill-based graduates.

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