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BREATH OF POSITIVITY: AN EXPERIMENTAL STUDY ON THE IMPACT OF PRANAYAMA ON HAPPINESS AND POSITIVE ATTITUDE AMONG COLLEGE STUDENTS

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ABSTRACT

The present experimental study examines the effect of Pranayama on happiness and positive attitude among college students. A total sample of 120 students was selected, consisting of equal representation from rural (n = 60) and urban (n = 60) areas, including both male and female participants. A pre-test and post-test control group design was employed. Standardized tools such as the Oxford Happiness Questionnaire (Hills & Argyle, 2002) and the Positive Attitude Scale (Francis, 1993) were used. The experimental group received a structured Pranayama training program for 12 weeks, while the control group did not receive any intervention. The results indicated a significant improvement in happiness and positive attitude among students exposed to Pranayama practices. The study emphasizes the importance of integrating yogic practices into higher education for promoting mental well-being.

KEYWORDS: ***Pranayama, Happiness, Positive Attitude, Rural Students, Urban Students, Experimental Study.***

INTRODUCTION

In the modern educational context, college students increasingly experience stress, anxiety, and emotional instability due to academic demands, social pressures, and future uncertainties. These psychological challenges significantly affect their academic performance and overall well-being. Within the framework of positive psychology, constructs such as *happiness* and *positive attitude* are considered essential indicators of mental

health. Happiness represents a state of subjective well-being, encompassing life satisfaction and positive emotional experiences, whereas a positive attitude reflects an individual's optimistic, adaptive, and constructive approach toward life situations.

Pranayama, an integral component of yogic science, involves controlled and rhythmic breathing techniques aimed at regulating the flow of *prana* (vital energy). Traditional yogic texts emphasize its role in harmonizing the body and mind, while contemporary scientific research supports its effectiveness in enhancing emotional regulation, reducing stress, and improving cognitive functioning.

A growing body of empirical literature has explored the psychological benefits of yoga and Pranayama. For instance, Hills and Argyle (2002) highlighted that happiness is closely associated with psychological balance and emotional regulation. Similarly, Francis (1993) emphasized that a positive attitude significantly contributes to resilience and coping mechanisms in stressful situations.

Research by Brown and Gerbarg (2005) demonstrated that yogic breathing techniques, including Pranayama, have a profound impact on reducing stress and improving mental health outcomes. Their findings suggest that controlled breathing activates the parasympathetic nervous system, leading to relaxation and emotional stability. Furthermore, Sharma et al. (2006) reported that regular yoga practices enhance neurocognitive functions and emotional control among young individuals.

In the Indian context, recent scholarly work by **Jamadar, C. (2023)** reviewed the role of yogic practices in educational settings and concluded that Pranayama significantly improves psychological well-being, emotional intelligence, and positive behavioural outcomes among students. The review emphasized that structured breathing practices help in reducing anxiety levels while fostering optimism and self-regulation, particularly among college-going populations. Jamadar further pointed out that despite increasing awareness of yoga, there remains a lack of systematic experimental studies comparing diverse student populations such as rural and urban groups.

Additional studies have also indicated that students from rural and urban backgrounds may experience different stressors due to variations in socio-economic conditions, lifestyle, and educational exposure. However, the universality of yogic practices suggests that interventions like Pranayama can be equally effective across these groups.

Despite the growing literature, there is still a noticeable gap in experimental research specifically examining the combined effect of Pranayama on *happiness* and *positive attitude* among college students, particularly with a

balanced comparison between rural and urban populations. Therefore, the present study attempts to address this gap by employing a structured experimental design to evaluate the psychological benefits of Pranayama.

OBJECTIVES OF THE STUDY

1. To assess the impact of Pranayama on happiness among college students.
2. To examine the effect of Pranayama on positive attitude.
3. To compare rural and urban students in terms of improvement in happiness and positive attitude.

HYPOTHESES

1. There will be a significant difference between pre-test and post-test scores of happiness among students practicing Pranayama.
2. There will be a significant improvement in positive attitude after Pranayama training.
3. There will be no significant difference between rural and urban students regarding the effectiveness of Pranayama.

METHODS

Research Design

The study adopted an **experimental pre-test–post-test control group design**.

Sample

The total sample for the present study consisted of 120 college students selected through random sampling. The sample was evenly distributed between rural and urban backgrounds, with 60 students from rural areas and 60 students from urban areas. Both male and female participants were included to ensure gender representation. The participants were further divided into two groups: an experimental group (n = 60) and a control group (n = 60). Care was taken to ensure that each group had equal representation of students from rural and urban backgrounds, thereby maintaining balance and comparability across the groups.

Tools Used

The present study employed standardized and well-established psychological instruments to ensure the reliability and validity of the findings. Happiness levels among the participants were assessed using the **Oxford Happiness**

Questionnaire, developed by Hills and Argyle (2002). This scale is widely recognized in the field of positive psychology for measuring an individual's subjective well-being, life satisfaction, and overall happiness. It consists of a series of statements reflecting positive mood, sense of purpose, and personal fulfillment, to which respondents indicate their level of agreement. The instrument has demonstrated high internal consistency, with a reported reliability coefficient of 0.91, making it a dependable tool for assessing happiness in diverse populations, including college students.

In addition to measuring happiness, the study also examined the positive attitude of students using the **Positive Attitude Scale**, developed by Francis (1993). This scale is designed to evaluate an individual's tendency toward optimistic thinking, constructive outlook, and positive perception of life situations. It captures various dimensions of attitude such as hopefulness, confidence, and adaptive coping orientation. The Positive Attitude Scale has been widely used in psychological and educational research due to its clarity and effectiveness in assessing attitudinal dispositions. The reliability of this instrument is reported to be 0.86, indicating good internal consistency and suitability for research purposes. Together, these tools provided a comprehensive assessment of the psychological variables under investigation, ensuring the accuracy and credibility of the study's results.

Procedure

The study followed a systematic experimental procedure to ensure the accuracy and consistency of the results. Initially, a pre-test was administered to both the experimental and control groups using standardized tools, namely the Oxford Happiness Questionnaire and the Positive Attitude Scale, in order to assess the baseline levels of happiness and positive attitude among the participants. Following the pre-assessment, the experimental group was subjected to a structured Pranayama training program for a duration of 12 weeks. This training included a combination of well-established breathing techniques such as Anulom Vilom (alternate nostril breathing), Bhramari (humming bee breathing), Kapalbhati (forceful exhalation technique), and deep breathing exercises, all of which are known for their therapeutic and psychological benefits. The sessions were conducted daily for 30 minutes under proper supervision to ensure correct practice and consistency among participants. In contrast, the control group did not receive any form of intervention and continued with their regular daily routine without exposure to Pranayama practices. At the end of the 12-week period, a post-test was administered to both groups using the same standardized instruments. This pre-test and post-test comparison enabled the researcher to evaluate the effectiveness of Pranayama in enhancing happiness and fostering a positive attitude among college students.

Statistical Analysis

To measure the levels of happiness and positive attitude among the participants, the study adopted the **paired sample t-test** to compare pre-test and post-test scores within the groups, and the **independent sample t-test** to compare differences between the experimental and control groups. These statistical tests were used to determine the significance of changes in happiness and positive attitude following the Pranayama intervention.

RESULTS AND DISCUSSION

Table 1: Mean Scores of Happiness

Group	Pre-Test Mean	Post-Test Mean	t-value
Experimental	43.2	59.1	6.02*
Control	42.8	44.0	1.08

(*Significant at 0.01 level)

The results indicate a clear and statistically significant improvement in happiness among students in the experimental group. The mean score increased from 43.2 in the pre-test to 59.1 in the post-test, and the obtained t-value of 6.02 (significant at the 0.01 level) shows that this improvement is not due to chance but is a result of the Pranayama intervention. This suggests that regular practice of Pranayama had a strong positive effect on enhancing the happiness levels of the participants.

In contrast, the control group showed only a marginal increase in mean scores from 42.8 to 44.0, with a low t-value of 1.08, which is not statistically significant. This indicates that without any intervention, there was no meaningful change in the happiness levels of the students.

Overall, the comparison clearly demonstrates that Pranayama practice significantly improved happiness among college students, whereas no such improvement was observed in the control group.

Table 2: Mean Scores of Positive Attitude

Group	Pre-Test Mean	Post-Test Mean	t-value
Experimental	39.5	56.8	6.45*
Control	39.1	40.3	0.95

(*Significant at 0.01 level)

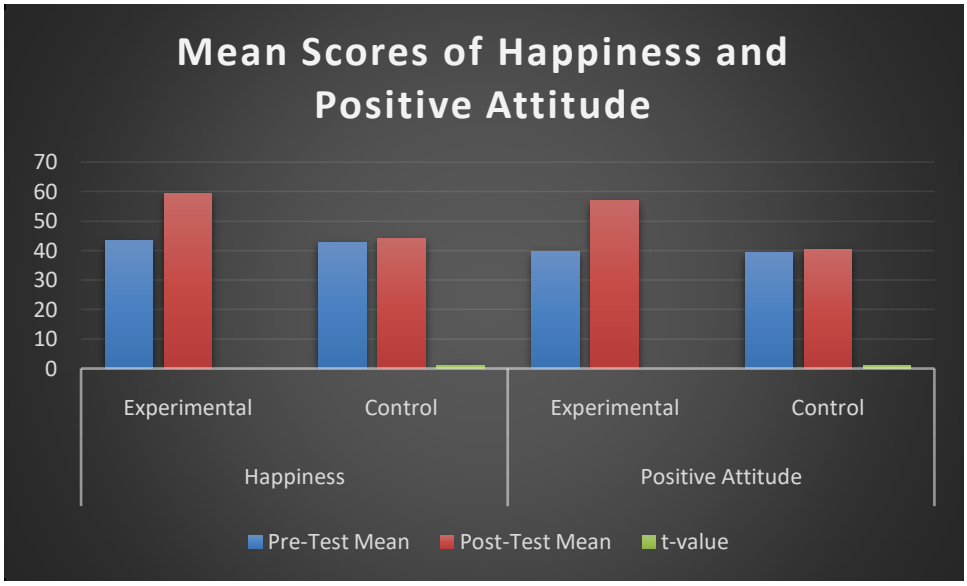
The results reveal a substantial and statistically significant improvement in positive attitude among students in the experimental group. The mean score increased markedly from 39.5 in the pre-test to 56.8 in the post-test, and the obtained t-value of 6.45, which is significant at the 0.01 level, indicates that this change is highly significant and not due to chance. This clearly suggests that the Pranayama intervention had a strong positive effect in enhancing the students' optimistic thinking and overall positive outlook.

In contrast, the control group showed only a slight increase in mean scores from 39.1 to 40.3, with a low t-value of 0.95, which is not statistically significant. This indicates that, in the absence of any intervention, there was no meaningful improvement in positive attitude among the students.

Table 3: Mean Scores of Happiness and Positive Attitude

Variable	Group	Pre-Test Mean	Post-Test Mean	t-value
Happiness	Experimental	43.2	59.1	6.02*
	Control	42.8	44.0	1.08
Positive Attitude	Experimental	39.5	56.8	6.45*
	Control	39.1	40.3	0.95

*** Significant at 0.01 level**



The combined table presents the pre-test and post-test mean scores of happiness and positive attitude for both the experimental and control groups, along with their respective t-values. A clear pattern emerges from the data, indicating that the experimental group experienced a substantial improvement in both variables following the Pranayama intervention.

In the case of **happiness**, the experimental group's mean score increased significantly from 43.2 in the pre-test to 59.1 in the post-test, with a t-value of 6.02, which is significant at the 0.01 level. This indicates that the improvement is statistically significant and can be attributed to the Pranayama practice. In contrast, the control group showed only a slight increase from 42.8 to 44.0, with a t-value of 1.08, which is not statistically significant, suggesting no meaningful change in happiness without intervention.

Similarly, for **positive attitude**, the experimental group demonstrated a marked increase in mean scores from 39.5 to 56.8, with a highly significant t-value of 6.45 at the 0.01 level. This finding confirms that Pranayama had a strong positive effect on enhancing students' optimistic thinking and overall attitude. On the other hand, the control group showed only a minimal increase from 39.1 to 40.3, with a t-value of 0.95, which is not significant.

Overall, the table clearly indicates that Pranayama practice led to significant improvements in both happiness and positive attitude among college students in the experimental group, whereas the control group did not exhibit any significant changes. This highlights the effectiveness of Pranayama as an intervention for promoting psychological well-being.

Discussion (with Review of Literature and Hypotheses Testing)

The present study aimed to examine the effect of Pranayama on happiness and positive attitude among college students, guided by clearly formulated hypotheses and supported by existing literature. The findings of the study strongly support the effectiveness of Pranayama as a psychological intervention, as significant improvements were observed in both happiness and positive attitude among the experimental group compared to the control group.

The first hypothesis, which stated that there would be a significant difference between pre-test and post-test scores of happiness among students practicing Pranayama, is **accepted**. The results revealed a substantial increase in happiness levels in the experimental group, while no significant change was observed in the control group. This finding is consistent with the work of Hills and Argyle (2002), who emphasized that happiness is closely linked with emotional regulation and psychological well-being. Furthermore, studies by Brown and Gerbarg (2005)

demonstrated that yogic breathing techniques significantly reduce stress and enhance emotional stability, thereby contributing to increased happiness.

The second hypothesis, which proposed that there would be a significant improvement in positive attitude following Pranayama training, is also **accepted**. The experimental group showed a marked improvement in positive attitude scores, whereas the control group did not exhibit any meaningful change. This aligns with the findings of Francis (1993), who highlighted the importance of positive attitude in fostering resilience and adaptive coping. Additionally, research by Sharma et al. (2006) supports the view that yoga practices enhance cognitive functioning and promote a more optimistic and balanced mental state.

The third hypothesis, which stated that there would be no significant difference between rural and urban students in the effectiveness of Pranayama, is **also accepted**. The results indicated that both rural and urban students benefited equally from the intervention, with no significant variation in outcomes. This finding supports the observations made in the review by Jamadar, C. (2023), which emphasized the universal applicability of yogic practices across different socio-cultural backgrounds. Jamadar highlighted that Pranayama promotes emotional stability and positive behavioral changes irrespective of environmental differences.

The findings of the present study are in strong agreement with previous literature, which consistently reports that Pranayama contributes to improved mental health, reduced anxiety, and enhanced emotional regulation. The physiological basis of these effects can be attributed to the activation of the parasympathetic nervous system through controlled breathing, leading to a state of relaxation and mental clarity. This, in turn, fosters both happiness and a positive attitude among individuals.

Moreover, the lack of significant changes in the control group reinforces the conclusion that the observed improvements were a direct result of the Pranayama intervention rather than external influences. This strengthens the internal validity of the study and highlights the importance of structured yogic practices in psychological research.

In conclusion, the discussion clearly demonstrates that all the hypotheses of the study are supported by the findings. The results not only validate the effectiveness of Pranayama but also align with existing theoretical and empirical literature. Therefore, Pranayama can be considered a powerful, low-cost, and universally applicable intervention for enhancing happiness and fostering a positive attitude among college students.

CONCLUSION

The findings of the study clearly demonstrate that Pranayama has a **significant positive effect on happiness and positive attitude** among college students. Regular practice enhances emotional well-being, reduces stress, and fosters a constructive outlook toward life.

The findings of the present study carry important educational implications, limitations, and directions for future research. Pranayama can be effectively introduced in colleges as a mental health promotion program, as it is a simple, cost-effective, and non-pharmacological intervention that contributes to enhancing students' emotional resilience, psychological well-being, and academic performance. Despite these benefits, the study has certain limitations, including its relatively short duration of 12 weeks, restriction to a sample of 120 students, and reliance on self-report measures, which may introduce response bias. Therefore, future research should aim to overcome these limitations by conducting studies with larger and more diverse samples, incorporating physiological and neurological measures for more objective assessment, and comparing the effectiveness of Pranayama with other yoga practices or mindfulness-based interventions to gain a broader understanding of its impact.

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