

Effect of Yogic Practices on Selected Psychological Variables among Tumkur University Athletes in Karnataka

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ABSTRACT

The purpose of the study was to examine the effect of yogic practices on selected psychological variables among university athletes. To achieve this objective, thirty athletes aged between 18 and 25 years were randomly selected from Tumkur University, Karnataka. The subjects were randomly divided into two groups of fifteen each, namely the experimental group (yogic practices) and the control group, following a true randomized group design. The experimental group underwent yogic practices for a period of twelve weeks, while the control group did not receive any specific training. Pre-test and post-test measurements were conducted for both groups. Standardized questionnaires were used to assess perceived stress and anxiety. The results revealed that the experimental group showed a significant reduction in perceived stress and anxiety when compared to the control group.

Key Words: Yogic Practices, Stress, Anxiety, Psychological, Athletes.

1. Introduction

In recent years, the importance of psychological well-being in athletic performance has gained significant attention. Athletes are not only required to possess physical fitness and technical skills but also need strong psychological attributes such as concentration, emotional stability, self-confidence, and stress management. These psychological variables play a crucial role in determining performance outcomes, especially in competitive sports environments where pressure and expectations are high. Yogic practices, rooted in ancient Indian traditions, have emerged as an effective means of enhancing both physical and psychological health. Yoga encompasses various components such as asanas (postures), pranayama (breathing techniques), meditation, and relaxation techniques, all of which contribute to overall well-being. Regular practice of yoga has been shown to reduce stress, improve mental clarity, enhance concentration, and promote emotional balance (Field, 2011).

Among athletes, psychological factors such as anxiety, stress, and lack of focus can negatively affect performance. Yogic practices help in regulating the autonomic nervous system, thereby reducing anxiety and improving mental stability. According to Iyengar (2005), yoga enhances harmony between the body and mind, leading to improved mental control and awareness. Similarly, studies have indicated that yoga and meditation practices significantly improve psychological variables such as self-confidence, attention, and emotional regulation (Gard et al., 2014). Athletes from universities, including those from Tumkur University, often face academic pressure along with sports commitments, which may lead to increased psychological stress. Incorporating yogic practices into their training routine can help in managing these challenges effectively. Despite the growing popularity of yoga in sports training, limited research has focused specifically on its impact on psychological variables among university-level athletes in Karnataka.

2. Methodology

Finding out how yoga practices affected specific psychological variables in university athletes was the aim of the study. Thirty athletes, ages 18 to 25, were chosen as subjects from the Tumkur University, Karnataka in order to fulfil the study's objectives. Thirty athletes were split into two groups of fifteen each, referred to as the control group and the yogic practices group, using a true randomised group design. Both before and after the twelve weeks of the experiment, the subjects underwent testing. The standard questionnaires were used to measure stress and anxiety.

3. Results and Discussion

The results are presented in the following tables,

Table 1. Computation of mean and analysis of covariance on perceived stress of experimental and control groups

| <i>Perceived stress</i> | | | | | | | |
|---------------------------|--------------------|---------------|--------------------|----------------|----|-------------|-------|
| | Experimental Group | Control Group | Source of variance | Sum of squares | df | Mean square | F |
| <i>Pre test mean</i> | 28.32 | 27.64 | BG | 1.80 | 1 | 1.80 | 0.22 |
| | | | WG | 228.66 | 28 | 8.16 | |
| <i>Post test mean</i> | 21.74 | 27.12 | BG | 77.50 | 1 | 77.5 | 5.42* |
| | | | WG | 399.86 | 28 | 14.28 | |
| <i>Adjusted post mean</i> | 21.83 | 27.06 | BG | 61.87 | 1 | 61.87 | 8.57* |
| | | | WG | 194.92 | 27 | 8.57 | |

* Significant at 0.05 level

In order to examine differences in Perceived stress between the study and non-study groups, a test between subject effects f-test was conducted. Given a $F(1,27)=0.002$, $p = .004$, a f-test unianova was calculated. The results of this test indicated that there was an insignificant difference in first mean and the obtained 'f' ratio was 0.22. And indicated significant differences in post and adjusted mean and the obtained 'f' ratios were 5.42 and 8.57. These results suggested there exists significance between study and non-study groups.

Figure 1. Line diagram shows the mean differences of Perceived stress

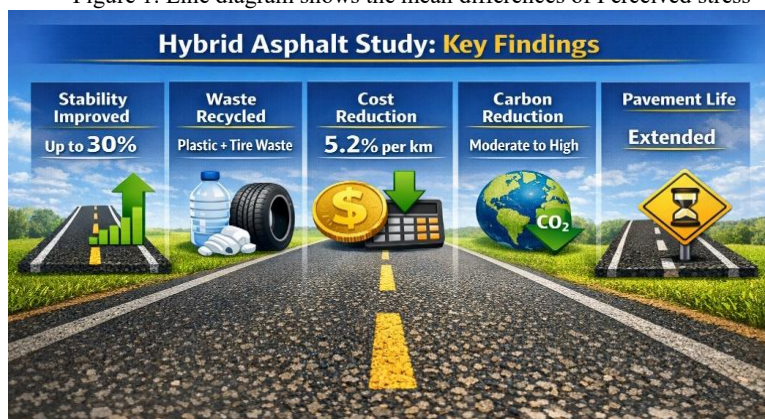


Fig :14.1: Key findings

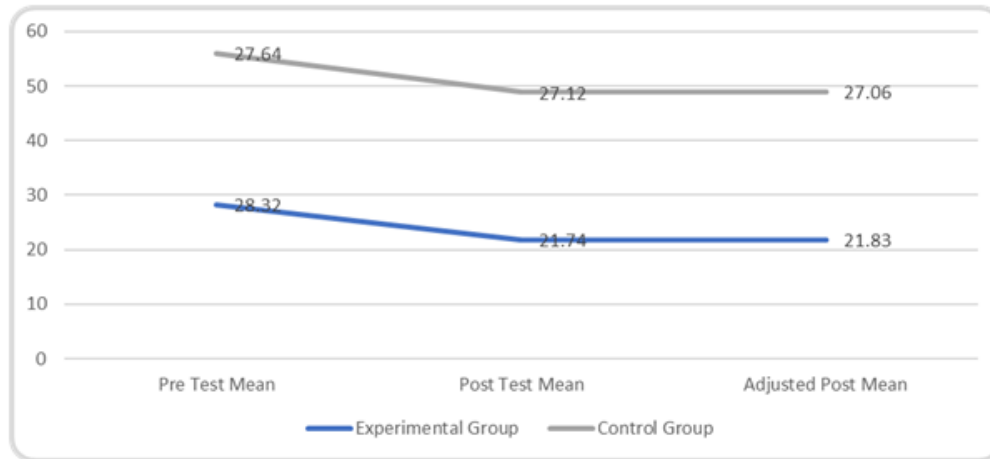


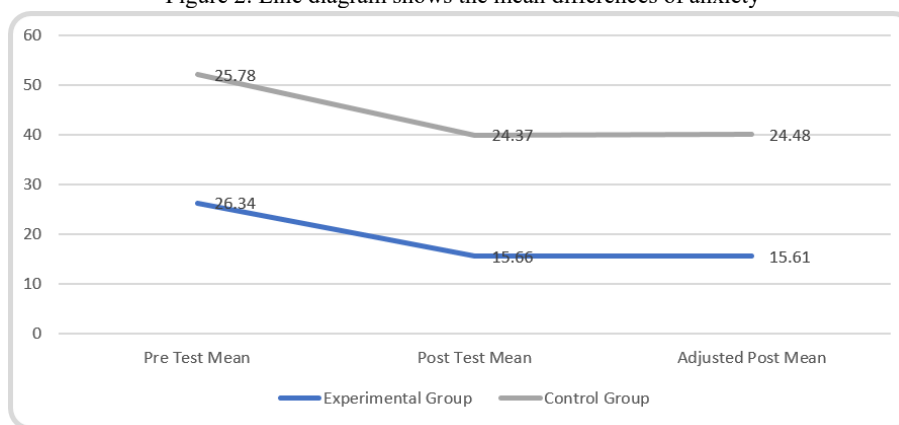
Table 2. Computation of mean and analysis of covariance on anxiety of experimental and control groups

| | | Anxiety | | | | | |
|--------------------|--------------------|---------------|--------------------|----------------|----|-------------|--------|
| | Experimental Group | Control Group | Source of variance | Sum of squares | df | Mean square | F |
| Pre test mean | 26.34 | 25.78 | BG | 12.80 | 1 | 12.80 | 0.27 |
| | | | WG | 1294.66 | 28 | 46.23 | |
| Post test mean | 15.66 | 24.37 | BG | 1663.33 | 1 | 1663.33 | 27.49* |
| | | | WG | 1694.13 | 28 | 60.50 | |
| Adjusted post mean | 15.61 | 24.48 | BG | 1457.52 | 1 | 1457.52 | 41.62* |
| | | | WG | 945.47 | 27 | 35.01 | |

* *Significant at 0.05 level

In order to examine differences in anxiety between the study and non-study groups, a test between subject effects f-test was conducted. Given a $F(1,27)=0.001$, $p = .003$, a f-test unianova was calculated. The results of this test indicated that there was an insignificant difference in first mean and the obtained 'f' ratio was 0.27. And indicated significant differences in last and modified last mean and the obtained 'f' ratios were 27.49 and 41.62. These results suggested there exists significance between study and non-study groups.

Figure 2. Line diagram shows the mean differences of anxiety



4. Discussion on Findings : The results of the study show that yogic practices had a significant effect on perceived stress and anxiety among athletes. There was no significant difference between the experimental and control groups at the pre-test level, indicating that both groups were similar before the intervention. However, significant improvements were observed in the post-test and adjusted post-test means. The experimental group showed a clear reduction in perceived stress and anxiety compared to the control group. This may be due to the calming and relaxing effects of yogic practices, which improve emotional stability and mental well-being. The findings are supported by previous studies which reported that yoga reduces stress and anxiety and enhances psychological health (Field, 2011; Gard et al., 2014). The control group did not show significant changes, highlighting the importance of structured yogic practices.

5. Conclusions

1. The experimental group had achieved significant reduction on perceived stress when compared to control group.
2. The experimental group had achieved significant reduction on anxiety when compared to control group.

References

1. Brown, R. P., & Gerbarg, P. L. (2005). Sudarshan Kriya yogic breathing in the treatment of stress and anxiety. *Journal of Alternative and Complementary Medicine*, 11(4), 711–717.
2. Eswaramoorthy, A. & Suresh Kumar, M. (2020). Effect of yogic practices and aerobic training on flexibility among physical education students. *Purakala*, 31,8, 417-420.
3. Field, T. (2011). Yoga clinical research review. *Complementary Therapies in Clinical Practice*, 17(1), 1–8.
4. Gard, T., Noggle, J. J., Park, C. L., Vago, D. R., & Wilson, A. (2014). Potential self-regulatory mechanisms of yoga for psychological health. *Frontiers in Human Neuroscience*, 8, 770.
5. Iyengar, B. K. S. (2005). *Light on Life: The Yoga Journey to Wholeness, Inner Peace, and Ultimate Freedom*. Rodale.
6. Suresh, Kumar M. (2019). Effect of yogic practices on selected lung volumes among asthmatic men. *The International journal of analytical and experimental modal analysis*, XI,VII, 1286-1290.