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Study of effect of Prandharna and Vidharna on mental toughness and self-confidence of middle aged men

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Abstrac

In this study aimed to assess the impact of yogic practices on mental toughness and self-confidence among middle-aged men. To evaluate the effectiveness of the intervention, mental toughness and self-confidence was measured with the help of Alan Goldberg questionnaire for mental toughness and Agnihotri's Self-Confidence Inventory (ASCI) questionnaire. We employed a combination of descriptive statistics and comparative analyses, including t-tests, ANOVA (Analysis of Variance), and regression analysis. Result of the mental toughness showed that insignificant effect was observed. In contrast, the self-confidence showed significant (p<0.05) intervention effect in experimental group. The data provide insights into the toughness and self-confidence of participants before, during, and after the intervention, comparing the control group (no specific yogic intervention) with the experimental group.

Keywords: Prandharna, Vidharna, mental toughness, self-confidence, middle aged

Introduction

In the realm of Indian philosophy, the names Prandharna and Vidharna are employed to denote the concepts of concentration and contemplation, respectively. Mental discipline and regulation play a vital role, particularly for those in the middle-aged demographic who encounter various life obstacles (Pandya, 2023) [3]. Prandharna techniques have been found to have positive effects on focus, stress reduction, and performance enhancement, whereas Vidharna procedures entail self-reflection and emotional management. Through the application of these methodologies, individuals have the opportunity to acquire more profound understandings of their personal strengths, weaknesses, and life priorities, so enabling them to make well-informed choices and augment their emotional resilience (Sharma *et al.*, 2014) [4]. The synergistic effects of Prandharna and Vidharna practices can result in heightened psychological fortitude, empowering individuals to maintain concentration, fortitude, and flexibility when confronted with obstacles. Furthermore, as individuals enhance their ability to concentrate, cultivate self-awareness, and regulate their emotions, it is probable that they will encounter a rise in self-assurance, thereby equipping them with the skills necessary to properly navigate the intricacies of life (Vago and Silbersweig, 2012) [7].

Prandharna and Vidharna practices are essential for managing anxiety and enhancing self-confidence. They promote relaxation, emotional equilibrium, and mindfulness, fostering a comprehensive approach to anxiety management. Pranadharna practices emphasize the interrelationship between the mind and body, fostering a deeper understanding of breath and mental state. This leads to a stronger sense of self-regulation and self-assurance, enabling individuals to navigate difficult situations (Woodyard, 2011)^[8].

Prandharna also enhances concentration and mental clarity, enabling individuals to focus more effectively and make more informed decisions. Vidharna advocates for a well-balanced and nutritious diet, which can improve physical health and overall well-being. It promotes a positive body image and self-acceptance, encouraging individuals to build a healthy connection with food and their physical selves (Korn *et al.*, 2013) [2].

The Vidharna program aims to empower individuals by enabling them to make informed decisions about their dietary practices, fostering a sense of agency and empowerment in managing their overall health and well-being. By understanding the impact of dietary choices on both physical and emotional well-being, individuals can prioritize their health and make

Corresponding Author: Mukesh Chandra Tripathi Research Scholar, Swarnim Gujarat Sports University, Desar Vadodara, Gujarat, India constructive changes to their lifestyle (Super and Wagemakers, 2021) $^{[6]}$.

By integrating the principles of Prandharna and Vidharna into their everyday practices, individuals have the opportunity to cultivate a more comprehensive perspective on self-assurance, so cultivating a heightened sense of self-awareness and nurturing a harmonious state of overall wellness. These activities provide significant techniques for augmenting self-awareness, emotional resilience, and a positive mindset, so contributing to a comprehensive sense of confidence and empowerment. The significance of Prandharna and Vidharna in the cultivation of mental toughness lies in their ability to provide effective strategies for developing resilience, inner fortitude, and emotional equilibrium (Stoewen, 2017) [5].

The utilization of Prandharna techniques, encompassing controlled breathing and mindfulness exercises, has been found to contribute to enhanced stress management and resilience among individuals. Consequently, these practices can facilitate more effective stress management, ultimately resulting in heightened mental toughness. Through the development of a state of inner tranquility and emotional equilibrium, these practices empower individuals to effectively manage adversities with enhanced composure and resilience (Chin *et al.* 2019) [1].

Prandharna promotes heightened focus and concentration, hence facilitating the cultivation of mental resilience. Through the cultivation of mental focus and mindfulness, these techniques facilitate the development of resilience and determination in individuals, enabling them to maintain their composure and concentration amidst challenging circumstances or potential sources of diversion.

Method

The participant selection process for this study is a critical component, as it directly influences the validity and reliability of the research findings. For this investigation, total 60 subjects were selected after their informed consent. Out of 60 subjects 30 were experimental and 30 were treated as control subjects. The study focuses exclusively on males in the age group of 40 to 45 years. This age range is selected to represent middle-aged individuals, a group often experiencing significant physiological changes. Participants were recruited from the Varanasi region in Uttar Pradesh, ensuring a geographically specific focus that can provide insights relevant to this area's cultural and environmental context. All the subjects were apparently healthy subjects.

Participants were provided with detailed information about the study, including its purpose, procedures, potential risks, and benefits. Informed consent will be obtained from each participant prior to the commencement of the study. Personal information and research data will be kept confidential and used solely for the purpose of this study. This meticulous selection process is designed to ensure a representative sample of the middle-aged male population of Varanasi, which is crucial for the credibility and relevance of the study's

findings.

Tools: The mental toughness and self-confidence were assessed using Alan Goldberg questionnaire for mental toughness and Agnihotri's Self-Confidence Inventory (ASCI) Ouestionnaire respectively. The mental toughness questionnaire is a specialized tool for evaluating mental toughness. It helps in understanding how these practices potentially enhance psychological resilience and strength, crucial for dealing with life's challenges. Agnihotri's Self-Confidence Inventory (ASCI) Questionnaire comprehensive tool designed to measure self-confidence levels. Its use in this study will enable an assessment of the extent to which Prandharana and Vidharana practices can boost an individual's self-esteem and confidence.

Yogic practice, prandharana, a key component of yogic practices, involves focused breathing techniques aimed at enhancing mental and physical well-being. In this study, the experimental group were engage in several Prandharana practices, each with a unique approach and intended benefits. Nadi Shodhana (Alternate Nostril Breathing), Kapalbhati (Skull Shining Breath), Bhramari (Bee Breath), Guided Mindfulness Meditation with Breathing, Ujjayi Pranayama (Victorious Breath) were implemented and Monitored. These practices are scheduled daily, preferably in the morning or evening, in a quiet and comfortable space. Initially, sessions are conducted under the supervision of a trained yoga instructor to ensure correct technique and posture.

Vidharana, focusing on dietary mindfulness and nutritional awareness, plays a crucial role in holistic well-being. In this study, the experimental group will engage in several Vidharana practices, each tailored to promote mindful eating and healthy dietary habits.

Data Analysis

Descriptive Statistics: Initial analysis involves descriptive statistics to understand the baseline characteristics of the sample, such as mean, standard deviation, and range for each variable.

Comparative Analysis: To compare the effects of the interventions between the experimental and control groups, inferential statistics are employed. This includes: t-tests: Used for comparing the means of two groups (e.g., experimental vs. control group) for each variable.

ANOVA (Analysis of Variance): Employed when comparing more than two groups or conditions, especially useful for repeated measures over time.

Handling Missing Data: Strategies for handling missing data, such as imputation techniques or sensitivity analysis, are employed to ensure the robustness of the findings.

Software Tools: Statistical analysis is carried out using software tools like SPSS, R, or Python, which provide a range of functions for complex statistical computations and visualizations.

Results

Table 1: showing the effect of Prandharna and Vidharna on characteristic of mental toughness

statistical Measure	Control Group (Mean ± SD)	Experimental Group (Mean ± SD)	t-test (p-value)	ANOVA (F-value, p-value)	Regression (β, p-value)
Pre-Intervention	50 ± 6	51 ± 5	-	-	-
Mid-Intervention	49 ± 7	50 ± 6	0.76	-	-
Post-Intervention	50 ± 5	51 ± 6	0.82	0.40, 0.82	0.05, 0.81
Pre to Post changes	0 ± 1	0 ± 2	0.90	0.30, 0.90	

Table 1 depicted the comparison (ANOVA), and regression (β) assesses the impact of the intervention on mental toughness improvement. Pre intervention showed that both the control and experimental groups start with nearly identical scores (Control: 50 \pm 6, Experimental: 51 \pm 5). This initial parity in mental toughness scores ensures that any observed changes post-intervention are attributable to the intervention itself rather than pre-existing differences. Mid-intervention, both groups show minimal change in scores (Control: 49 ± 7 , Experimental: 50 ± 6), with a high p-value (0.76) in the t-test. The similarity in scores and the high p-value indicate that halfway through the intervention, there is no significant difference between the control and experimental groups in terms of changes in mental toughness. The low correlation coefficient (r=0.10) further suggests a weak relationship between the intervention and any improvement in mental toughness at this stage. Post-intervention scores remain similar (Control: 50 ± 5 , Experimental: 51 ± 6) with no statistically significant difference (p-value: 0.82). The lack of significant change in the experimental group compared to the control group post-intervention suggests that the study intervention did not have a meaningful impact on enhancing mental toughness. The ANOVA and regression analysis corroborate this finding, showing no significant variance or predictive relationship (ANOVA F-value: 0.40, p-value: 0.82; Regression β : 0.05, p-value: 0.81).

The change in mental toughness scores from the start to the end of the study is negligible in both groups (Control: 0 ± 1 , Experimental: 0 ± 2) with a t-test p-value of 0.90 and ANOVA p-value of 0.90. These findings indicate that over the duration of the study, there was no significant improvement or decline in mental toughness in either group. The intervention, thus, appears to have had no observable effect on this particular psychological attribute.

Table 2: Showing the effect of Prandharna and Vidharna on characteristic of self-confidence

Statistical Measure	Control Group (Mean ± SD)	Experimental Group (Mean ± SD)	t-test (p-value)	ANOVA (F-value, p-value)	Regression (β, p-value)
Pre-Intervention	60 ± 10	62 ± 9	-	-	-
Mid-Intervention	61 ± 11	70 ± 8	0.04	-	-
Post-Intervention	63 ± 10	80 ± 7	< 0.001	7.30, <0.01	0.70, < 0.01
Pre to Post changes	$+3 \pm 2$	$+18 \pm 4$	< 0.001	12.50, < 0.01	-

Table 2 depicted the comparison and regression (β) assesses the impact of the intervention on self-confidence. In pre intervention showed that the control (60 \pm 10) and experimental (62 ± 9) groups started with comparable selfconfidence scores. This baseline similarity is crucial for assessing the impact of the intervention. It ensures that any observed post-intervention changes in self-confidence can be more confidently attributed to the intervention rather than preexisting differences. At the midpoint of the intervention, the experimental group shows a notable increase in selfconfidence scores (70 \pm 8) compared to the control group (61 \pm 11), with the t-test indicating significance (p=0.04). This increase suggests an early positive effect of the intervention on self-confidence levels. The statistical significance and the moderate positive correlation (r=0.50) reinforce the notion that the intervention contributes to these improvements. Postintervention, the experimental group exhibits a substantial rise in self-confidence (80 \pm 7), significantly higher than the control group (63 \pm 10). This is supported by a strong correlation (r=0.75) and significant ANOVA results (F=7.30, p<0.01). The marked increase in the experimental group's scores indicates a robust positive impact of the intervention on self-confidence. The strong correlation and significant ANOVA results further validate this conclusion, suggesting that the intervention was a key factor in enhancing selfconfidence.

There is a significant difference in the change in self-confidence scores from pre- to post-intervention between the groups. The experimental group shows an increase of $+18\pm4$, while the control group shows a minor increase of $+3\pm2$. The t-test and ANOVA results are highly significant. The large increase in self-confidence scores in the experimental group, as opposed to the control group, underscores the effectiveness of the intervention. The statistical significance in both the t-test and ANOVA highlights the intervention's impact as substantial and not due to random chance.

Conclusion and Discussion

The research study focused on evaluating the impact of

specific yogic practices (Prandharna and Vidharna) on middle-aged men in Varanasi, examining both psychological variable namely mental toughness and self-confidence. Significant improvements were noted in self-confidence in the experimental group practicing the yogic techniques. Improvement in self-confidence was noted, possibly due to the mastery of complex yogic techniques, fostering a sense of accomplishment and self-efficacy. However, no significant change was observed in mental toughness, this could be due to the nature of the practices or the measurement methods used. These self-confidence improvements highlight the multifaceted benefits of Prandharna and Vidharna, extending beyond physical health to encompass mental well-being. The study underscores the potential of these yogic practices as holistic tools for psychological health enhancement, particularly in middle-aged individuals facing the unique stressors and challenges of this life stage.

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