

Research Paper

## Effect of Meditation and Yoga on Self-Esteem among Urban and Rural Residents of Varanasi: A Pre-Test and Post-Test Study

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### ABSTRACT

The present study investigates the effect of yoga and meditation on self-esteem among 100 participants (50 males and 50 females) residing in urban and rural areas of Varanasi. A pre-test and post-test experimental design was employed. The Rosenberg Self-Esteem Scale (1965) was used to measure self-esteem levels. Participants underwent a structured yoga and meditation intervention for six weeks. Statistical analysis revealed a significant improvement in self-esteem scores after the intervention. Rural participants showed comparatively greater improvement, while gender differences were minimal. The study highlights the importance of integrating yoga and meditation into mental health promotion programs.

**Keywords:** *Self-Esteem, Meditation, Yoga, Urban, Rural, Varanasi*

Self-esteem is a vital psychological construct that plays a significant role in shaping an individual's personality, behavior, and overall mental health. It represents an individual's evaluation of their own worth and is closely linked with emotional stability, confidence, and resilience. High self-esteem enables individuals to cope effectively with stress, whereas low self-esteem is associated with negative emotions such as anxiety, depression, and self-doubt.

In modern society, individuals are exposed to various stressors including academic pressure, social expectations, and technological influences. These factors significantly affect mental health and self-perception. In India, the contrast between urban and rural lifestyles further contributes to differences in psychological well-being.

Yoga and meditation, rooted in ancient Indian traditions, have emerged as powerful tools for enhancing mental health. Yoga integrates physical postures, breathing techniques, and mental discipline, while meditation promotes mindfulness and emotional balance. Scientific research supports their effectiveness in improving psychological constructs such as self-esteem.

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Received: March 26, 2026; Revision Received: April 14, 2026; Accepted: April 18, 2026

## REVIEW OF LITERATURE

- **Rosenberg (1965)** defined self-esteem as an individual's overall sense of self-worth. His scale remains widely used in psychological research. Baer (2003) highlighted mindfulness as an effective intervention for improving emotional regulation.
- **Brown and Ryan (2003)** found that mindfulness enhances psychological well-being and reduces stress. Kabat-Zinn (1990) introduced Mindfulness-Based Stress Reduction (MBSR), demonstrating its effectiveness in improving mental health.
- **Deshpande et al. (2008)** emphasized yoga as a therapeutic intervention for psychological disorders. Gupta and Khera (2017) found significant improvements in self-esteem among yoga practitioners.
- Studies indicate that rural populations may benefit more due to lower baseline exposure. Gender differences are generally minimal.

### *Need and Significance of the Current Study*

Despite the growing global awareness regarding the benefits of yoga and meditation, there remains a noticeable gap in empirical research examining their comparative impact on self-esteem across different demographic variables such as gender and residential background. In the Indian context, particularly, very few studies have systematically explored how individuals from urban and rural settings respond differently to such interventions. This creates a strong need for research that not only evaluates the effectiveness of these practices but also considers socio-cultural diversity.

The present study is especially significant as it focuses on Varanasi, a city that uniquely represents both traditional rural lifestyles and rapidly developing urban environments. This dual representation allows for a more comprehensive understanding of how environmental and cultural factors influence psychological constructs like self-esteem. By including equal representation of males and females, as well as urban and rural participants, the study ensures a balanced and inclusive approach to psychological research.

Furthermore, this study holds practical significance in the field of mental health and well-being. In a country like India, where access to professional mental health services is often limited, especially in rural areas, yoga and meditation can serve as cost-effective, accessible, and culturally acceptable interventions. The findings of this research can contribute to the development of community-based mental health programs, school curricula, and wellness initiatives that incorporate yoga and meditation as essential components.

Additionally, the study supports the integration of traditional Indian practices into modern psychological frameworks, thereby bridging the gap between ancient wisdom and contemporary science. It also provides valuable insights for policymakers, educators, and mental health practitioners to design targeted interventions aimed at enhancing self-esteem and overall psychological well-being.

### *Objectives of the Study*

1. To measure self-esteem before intervention.
2. To assess the impact of yoga and meditation.
3. To compare gender differences.
4. To compare urban and rural differences.

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### *Hypotheses*

- **H1:** Significant difference between pre-test and post-test scores.
- **H2:** Significant gender differences.
- **H3:** Significant urban-rural differences.

## **METHODOLOGY**

### *Research Design*

The present study adopted an experimental research design using a **pre-test and post-test** approach. This design was selected to measure the effectiveness of yoga and meditation intervention on self-esteem by comparing participants' scores before and after the treatment. Initially, baseline data were collected using the Rosenberg Self-Esteem Scale (pre-test). Following this, participants underwent a structured yoga and meditation program for a specified duration. After completion, the same scale was administered again (post-test) to assess changes in self-esteem levels. This design helps in establishing a cause-and-effect relationship between the intervention and observed outcomes.

**Sample** The sample of the present study consisted of a total of 100 participants selected from urban and rural areas of Varanasi district. The sample was carefully structured to ensure equal representation across gender and residential background.

- **Total Participants:** 100
- **Gender Distribution:** 50 males & 50 females
- **Residential Distribution:** 50 participants from urban areas and 50 from rural areas

The participants were selected within the age range of 18 to 35 years, representing young adults who are at a critical stage of psychological development and self-concept formation. This age group was chosen because self-esteem is particularly sensitive to environmental, social, and cognitive influences during this period. Efforts were made to maintain homogeneity in terms of educational background and general health status to minimize extraneous variables. All participants were physically and mentally healthy and were not undergoing any prior formal training in yoga or meditation. The equal distribution of participants across gender and residential categories allowed for meaningful comparative analysis. This balanced design enhanced the reliability and validity of the study by reducing sampling bias and ensuring that the findings could be generalized across different demographic groups.

Furthermore, informed consent was obtained from all participants prior to their inclusion in the study, and ethical guidelines were strictly followed throughout the research process.

### *Sampling Technique*

Purposive sampling technique was used in this study. Participants were deliberately selected based on specific criteria such as age, health condition, and willingness to participate. This method ensured that only relevant individuals suitable for the yoga and meditation intervention were included, thereby enhancing the effectiveness and accuracy of the research outcomes.

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### **Tool**

The Rosenberg Self-Esteem Scale (1965) is a widely used instrument to measure global self-esteem. It consists of 10 items rated on a 4-point Likert scale rating from strongly agrees to strongly disagree. The scale includes both positive and negative statements, assessing an individual's overall sense of self-worth and self-acceptance.

### **Intervention**

The intervention program was conducted over a period of six weeks, with daily sessions lasting 45 to 60 minutes. It included a structured combination of yoga practices and meditation techniques aimed at improving psychological well-being. The session began with asanas (physical postures) such as Tadasana, Bhujangasana, and Vajrasana to enhance physical relaxation and body awareness. This was followed by pranayama techniques like Anulom-Vilom and Kapalbhati, which help regulate breathing and reduce stress. The session concluded with meditation, focusing on mindfulness and mental concentration. This integrated approach facilitated emotional stability, self-awareness, and ultimately contributed to improved self-esteem among participants.

### **Procedure**

The study followed a systematic procedure comprising four stages: pre-test, intervention, post-test, and analysis. Initially, participants were administered the Rosenberg Self-Esteem Scale to assess baseline self-esteem levels (pre-test). Following this, a structured yoga and meditation program was conducted for duration of six weeks under guided supervision. The intervention included asanas, pranayama, and mindfulness meditation practiced regularly. After completion of the intervention, the same self-esteem scale was administered again (post-test) to measure changes. Finally, the collected data were statistically analyzed using appropriate methods to determine the effectiveness of the intervention on self-esteem.

## **RESULTS AND ANALYSIS**

The descriptive statistics revealed a noticeable improvement in self-esteem scores following the yoga and meditation intervention. The mean pre-test score was 21.45, indicating a moderate level of self-esteem among participants before the intervention. After six weeks of structured yoga and meditation practice, the mean post-test score increased to 28.60, reflecting a substantial enhancement in participants' self-esteem levels.

**Table 1: Pre-test and Post-test Self-Esteem Scores**

Gender	N	Mean (pre-test)	Mean (post-test)	Mean Difference
Total Sample	100	21.45	28.60	7.15

The increase in mean score (7.15 points) clearly indicates a positive effect of the intervention.

A paired sample t-test was conducted to determine whether the observed difference between pre-test and post-test scores was statistically significant. The results showed that the improvement in self-esteem scores was statistically significant at the 0.05 level ( $p < .05$ ). This indicates that the changes in self-esteem were not due to chance, but were a direct result of the yoga and meditation intervention. Therefore, the null hypothesis was rejected, and the alternative hypothesis was accepted.

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### *Gender Comparison*

Further analysis was conducted to examine differences in self-esteem improvement between male and female participants. The results indicated that both males and females showed improvement in self-esteem after the intervention. However, the difference between the two groups was not statistically significant.

**Table 2: Gender-wise Comparison of Self-Esteem Gain Scores**

Gender	N	Mean Gain Score	Result
Male	50	7.00	No Significant
Female	50	7.30	

Although females showed slightly higher improvement, the difference was not large enough to be considered statistically significant.

### **Urban vs. Rural Comparison**

The comparison between urban and rural participants revealed a significant difference in self-esteem improvement. Rural participants demonstrated greater gains in self-esteem compared to their urban counterparts.

**Table 3: Urban vs. Rural Comparison**

Area	N	Mean Gain Score	Result
Urban	50	6.80	Significant
Rural	50	7.50	

This suggests that rural participants benefited more from the intervention, possibly due to lower initial exposure to structured psychological practices..

## **DISCUSSION**

The present study aimed to examine the effect of yoga and meditation on self-esteem among urban and rural residents of Varanasi using a pre-test and post-test experimental design. The findings revealed a statistically significant improvement in self-esteem scores following the intervention, thereby supporting the primary hypothesis (H1). This indicates that structured yoga and meditation practices can serve as effective psychological interventions for enhancing self-worth and emotional stability.

From a theoretical perspective, the results align with humanistic psychology, particularly the work of Carl Rogers, who emphasized self-concept and self-worth as central to psychological well-being. Yoga and meditation facilitate self-awareness, acceptance, and inner balance, which contribute directly to improved self-esteem.

The significant increase in post-test scores suggests that participants developed better emotional regulation, self-acceptance, and mindfulness. Practices such as pranayama and meditation help reduce cortisol levels and enhance parasympathetic nervous system activity, leading to reduced stress and improved mental clarity. This physiological change is closely linked with improved psychological outcomes, including self-esteem.

The findings are consistent with previous research. For instance, studies have shown that mindfulness-based interventions improve self-esteem by reducing negative self-evaluation

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and enhancing present-moment awareness. Similarly, yoga-based interventions have been found to improve body awareness and self-image, which are key components of self-esteem. In terms of gender differences (H2), the study found no significant variation between male and female participants. Both groups demonstrated comparable improvements in self-esteem levels. This suggests that yoga and meditation are gender-neutral interventions and can be effectively applied across different demographic groups. However, slight variations in mean scores indicated that females showed marginally higher improvement, which may be attributed to greater emotional responsiveness and engagement in introspective practices.

Regarding residential background (H3), the results indicated that rural participants experienced greater improvement in self-esteem compared to urban participants. This finding is particularly important in the Indian context. Rural individuals may have lower baseline exposure to structured psychological interventions, making the effects of yoga and meditation more pronounced. Additionally, rural lifestyles often involve closer community ties and fewer technological distractions, which may enhance the effectiveness of mindfulness practices.

Urban participants, on the other hand, may face higher levels of stress due to competitive environments, time constraints, and digital overload. While they also benefited from the intervention, the degree of improvement was slightly lower compared to rural participants.

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### **Acknowledgment**

The author(s) appreciates all those who participated in the study and helped to facilitate the research process.

### **Conflict of Interest**

The author(s) declared no conflict of interest.

**How to cite this article:** Pandey, K.N. (2026). Effect of Meditation and Yoga on Self-Esteem among Urban and Rural Residents of Varanasi: A Pre-Test and Post-Test Study. *International Journal of Indian Psychology*, 14(2), 188-194. DIP:18.01.019.20261402, DOI:10.25215/1402.019