



# Personality Development of middle- aged Women through Yoga with Recreational activities- An investigation

Priyatosh Mondal<sup>1\*</sup> and Shyamal Mazumder<sup>2</sup>

<sup>1</sup>Department of Physical Education The University of Burdwan, Bardhaman, West Bengal, India

<sup>2</sup>Government Physical Education College for Women, Hooghly, West Bengal, India  
priyatoshmondal1991@gmail.com

Available online at: [www.isca.in](http://www.isca.in), [www.isca.me](http://www.isca.me)

Received 13<sup>th</sup> February 2026, revised 23<sup>rd</sup> March 2026, accepted 15<sup>th</sup> April 2026

## Abstract

*Yoga provides self-care, introspection, and personal enrichment during life transitions, making it an invaluable tool for middle-aged women. Recreational activities offer opportunities for interpersonal interaction, personal development, and artistic and sporting expression. These activities have a substantial impact on an individual's personality traits, character development, conduct, and overall growth. The present investigation intended to determine the impact of yoga and recreational activities on personality development. A quasi-experimental study was conducted in Jirat, Hooghly, West Bengal. To achieve the study's objectives, a 12-week training program was implemented. A baseline and follow-up assessment method has been adopted, and the Eysenck personality questionnaire has been used to obtain the data convenience sampling has been used to select 40 participants. The data has been calculated using the Jamovi and Excel software. An independent t-test has been used to find the statistical differences between the experimental and control groups. The data analysis demonstrated that the pe of the experimental group's participants improved significantly. Significant improvements have been observed in the emotional stability and social adjustment of personality characteristics. Participation in Yoga combined with recreational activities positively impacts personality development, particularly in reducing neuroticism and psychoticism, while enhancing stability and socialization. This suggests that integrating such practices can be beneficial for personal development and overall well-being.*

**Keywords:** Yoga; Recreational Activities; Personality Development; Middle-Aged Women; Neuroticism; Psychoticism.

## Introduction

Women in middle age frequently experience specific challenges and life transitions, such as changes in hormones, regulating changes, careers, house work, personal emptiness, and childcare responsibilities. Amidst these transitions, yoga shines like a lighthouse, providing middle-aged women with a haven for self-care, reflection, and personal enrichment. Women in this stage of life find comfort in yoga's capacity to ease bodily discomforts like joint stiffness and muscular strain while also nourishing their emotional well-being, thanks to the kind instruction of yoga instructors and the encouraging community of fellow practitioners. Yoga's focus on meditation and breath awareness makes it simpler and more resilient for people to deal with stress, anxiety, and the challenges of daily activities<sup>1</sup>.

In addition, middle-aged women experience a revitalized sense of energy, purpose, and confidence when they use yoga to develop a deeper connection to their bodies and their inner beings. It turns into a life-changing journey of self-discovery that gives them the confidence to take advantage of every chance they get and close this chapter with grace and perseverance. Yoga offers an exhaustive framework that supports physical health, psychological balance, and emotional

regulation, making it a beneficial exercise that fosters personality development in middle-aged women<sup>2</sup>.

Yoga offers an atmosphere for introspection, relief from stress, and personal development as women traverse the complicated challenges of this time of life. They develop resilience, inner strength, and a sense of independence with consistent effort, which boosts confidence and a positive self-image<sup>3</sup>.

By promoting self-awareness yoga helps practitioners become more attentive to their bodies, thoughts, and emotions, thereby improving their sense of self-awareness and acceptance. Furthermore, the physical positions, or Asanas, increase flexibility, balance, and improve our posture, encouraging ageing elegantly and boosting energy throughout the entire body<sup>4</sup>.

The role of recreational activities, such as modified games according to the specific age group, cannot be overlooked in the personality development of middle-aged women. Recreational activities have a significant impact on the psychological well-being and stress management of women and they also increase their life satisfaction through this<sup>5</sup>. Recreational activities have provided an opportunity for socialization, enjoyment, as well as emotional expression<sup>6</sup>.

The recreational activities, especially when well-organized, have helped in the development of self-confidence, cooperation, leadership skills, as well as social competence. The combination of recreational activities with yoga helps to enhance the positive effects of yoga, such as self-awareness, emotional stability, as well as inner strength. Recreational activities have helped in the development of teamwork, communication skills, as well as adaptability. The combination of yoga with recreational activities helps to create a holistic framework that promotes physical health, psychological stability, as well as positive personality development.

However, while many studies have focused on women during mid-life health, with a particular emphasis on biological and physiological changes, there is a scarcity of evidence on the psychological and social state of middle-aged women. Thus, this particular study aims to explore the personality development of middle-aged women through Yoga with recreational activities within a particular age group of the state.

**Aim of the Study:** This study attempts to look into how Yoga combined with recreational activities, can influence the personality development of middle-aged women. By investigating this combination of practices of two types of training programs, the research aims to uncover potential benefits for personal growth and for overall quality of life among this demographic group.

**Inclusion Criteria:** i. Participants should fall within a predetermined 40-60 years age range typically considered middle-aged considered as a inclusion criteria. ii. Free from any major ailment. iii. Women who express willingness and commitment to engage in the study activities.

**Exclusion Criteria:** i. Women with uncontrolled medical conditions. ii. Women with a recent diagnosis of a major psychological disorder requiring active treatment. iii. Women who already have a regular yoga practice, as it might be difficult to isolate the program's impact.

**Limitation:** i. This study did not evaluate additional factors that could influence the outcomes, such as the individuals' living environment, medicine, eating habits, lifestyle, genetics/family history, emotional state, or motivation. ii. The small sample size and limited geographical coverage may restrict generalizability and 12 weeks of training employed in this study, the researcher think, may influence the study. iii. Questionnaire English Language was considered for the study.

**Delimitation:** i. Three-day training programme of each week till twelve weeks. ii. For the purpose of measuring personality of middle-aged women, the study was confined to Eysenck Personality Questionnaire-revised (EPQ-R). iii. The study delimited with the forty middle-aged women located in Balagarh, Hooghly. West Bengal

**Hypothesis:** The hypothesis for the study was that the participation of the subjects in the combined yoga and recreational activities program would significantly improve the personality development of middle-aged women compared to the women in the control group who did not undergo the program.

**Methodology**

**Design of the Study:** A quasi-experimental pre- and post-test approach was used in this study. The subjects were split into two equal groups: a control group and an experimental group. While the control group continued on with their regular daily routine without any formal intervention, the experimental group was involved in a twelve-week program of structured yoga and recreational activities.

**Participants:** Participants were selected using a convenience sampling technique. In this study, a total of 40 middle-aged women were selected from the Balagarh area, which is a part of the Hooghly district in India. Before the actual implementation of the intervention program, it was attempted to ensure the homogeneity of the group regarding certain factors. The participants were between 40 and 60 years old.

**Criterion Measures:** To study the personality traits, the Eysenck Personality Questionnaire-Revised (EPQ-R) scale was employed. The variables that were chosen for analysis were Extraversion-Introversion, Neuroticism-Emotional Stability, Psychoticism-Socialization.

**Table-1:** The combine training program of Yogasana and Recreational activities.

Week	Exercise	Duration (Minute)	Total Exercise duration (Minute)
First & Second	Yoga & Recreational Activities	20+10	30
Third & Fourth	Yoga & Recreational Activities	20+12	32
Fifth & Six	Yoga & Recreational Activities	30+14	44
Seven & Eight	Yoga & Recreational Activities	30+16	46
Nine & Ten	Yoga & Recreational Activities	35+18	52
Eleven & Twelve	Yoga & Recreational Activities	35+20	55
Five-minute stretching exercises were performed as a warm-up in each session			

**Data Collection and Tools:** Eysenck Personality Questionnaire-revised (EPQ-R) was adopted for collecting the data. According to questionnaire manual, the scores was converted in numerical from.

**Statistical Analysis:** The data was then processed using appropriate statistical procedures. Descriptive statistics, such as mean and SD, were employed for this purpose. To find out if the intervention had an impact on the experimental group, the pair t-test was utilized. All statistical calculations were performed using SPSS 20 software. The level of significance was fixed to 0.05.

## Results and Discussion

In terms of Extraversion show in the Table-2 the average mean score of the experimental group pre-test and post-test 8.45, SD-2.9 respectively and 8.40, SD -2.8 respectively. The t-value of 0.054 was lower than the critical table t-value of 2.09 at a 0.05 level of significance on 19 df. Therefore, the differences found from pre-test to post-test are not statistically significant.

**Table-2:** Presents the mean, SD, and obtained *t* value for extraversion between the experimental and control groups.

Parameter	Groups	Test	Mean	SD	“t”
Extra version	Experimental	Pre	8.45	2.9	0.054.
		Post	8.40	2.8	
	Control	Pre	7.50	1.0	0.40.
		Post	7.65	1.3	

The control group also demonstrated similar results to the experimental group regarding Extraversion with their respective average mean scores of pre-test -7.50, SD-1.0 and post-test -7.65, SD -1.3. Their calculated t-value was 0.40, which was lower of the critical value range. Therefore, result suggested there were no significant differences from pre-test to post-test.

Therefore, it can be concluded that the twelve-week intervention of yoga and recreational activities was no statistically significant impact on the extraversion dimension of personality.

**Table-3:** Present the mean, SD and obtain ‘t’ value for Neuroticism/Stability between the experimental and control group.

Parameter	Groups	Test	Mean	SD	“t”
Neuroticism/ Stability	Experi- mental	Pre	6.2	2.1	3.47*
		Post	8.6	2.16	
	Control	Pre	5.85	1.59	0.38
		Post	6.05	1.66	

The mean comparison shows in Table-3 of the experimental group of Neuroticism/Stability pre-test scores 6.2 and post-test scores 8.6 is statistically significant, showing the improvements made to emotional stability in this group due to the interventions. According on the 't'-test comparison between the experimental  $t = 3.47$  and control  $t = 0.38$  groups, the experimental group's improvements after the intervention were significantly greater than the control groups. The results indicate that Yoga and recreational activity intervention had a substantial impact on the emotional stability of the experimental group members to lower their neurotic tendencies.

**Table-4:** presented the mean, SD and obtain ‘t’ value for Psychoticism/Socialisation between the experimental and control group.

Parameter	Groups	Test	Mean	SD	“t”
Psychoticism/ Socialisation	Experi- mental	Pre	3.65	1.66	2.14*
		Post	4.75	1.5	
	Control	Pre	4.05	1.30	1.67
		Post	4.70	1.12	

As per the Table-4, the mean score of the experimental group was raised from 3.65, SD- 1.66 at the pre intervention to 4.75, SD- 1.5 at the post intervention. The calculated t value was 2.14, which was higher than the table value 2.09 at 0.05 level of significance, thus showing a statistically significant result. The mean values of the control group were 4.05, SD- 1.30 at the pre-test, and 4.70, SD- 1.12 at the post-test. The calculated t value was 1.67, which was not higher than the table value, thus the result showing statistically non-significant. The programmable intervention was found to have a significant effect on the development of personality traits of socialization as compared to the control group.

**Discussion:** The present study attempted to examine the impact of a structured yoga program in combination with recreational activities on certain personality traits of middle-aged women on certain personality traits of extraversion, neuroticism/emotional stability, and psychoticism /socialization. The outcomes indicated that the intervention had diverse effects on various aspects of personality. The statistical analysis demonstrated no significant change in extraversion between the two groups of participants. This finding implies that extraversion, which is a rather stable personality trait, may not be significantly altered by short-term behavioral interventions like a twelve-week training program.

Other research has found similar results, which imply that although emotional control and mental calmness can be promoted through the practice of yoga, the trait of extraversion might not be significantly changed through the practice of the same<sup>8,9</sup>.

Some scholars argue that traits such as extraversion are changed by long-term influences of the surroundings as opposed to short-term influences<sup>10</sup>. On the other hand, the research also showed a significant difference in neuroticism/stability of the experimental group at a statistical level. This result is supported by a large research literature that has consistently shown that yoga practices are beneficial for improving emotional stability, reducing stress, and enhancing mental well-being. For instance, yoga practices including Asanas, pranayamas, and other relaxing techniques have been observed to be beneficial in reducing anxiety, emotions, and mood fluctuations, which eventually results in increased emotional stability<sup>11,12</sup>.

In addition, the benefits of recreational activities also lie in the experience of pleasure, social interactions, and the opportunity to express emotions, which is essential for the mental well-being of middle-aged women<sup>13</sup>.

From the present study, it may be indicated that the holistic approach of yoga with recreational activities provides a conducive atmosphere to promote positive social behaviors as well as the development of personality. The lack of significant changes in the control group for all variables actually validates the supposition that the improvements found in neuroticism/stability and psychoticism/socialisation were influences of the intervention. The results support the notion that an intervention using yoga and recreational activities can be an effective intervention for improving psychological states and other personality factors among middle-aged women without the need for medication.

In overall, the current study's findings are consistent with previous studies emphasizing the relevance of implementing comprehensive physical activity programs in personality development and mental health promotion. This investigation underlines the need of incorporating yoga and recreational activities into middle-aged women's daily lifestyle routines to promote personality development and mental stability.

## Conclusion

The current study investigated the impact of a twelve-week yoga program along with recreational activities on several personality traits among middle-aged women. The results demonstrated significant increases in emotional stability and socialization-related qualities in the experimental group, implying that the intervention helped to reduce neurotic tendencies and promote adaptive social behavior. In contrast, no significant change was detected in the extraversion measure, indicating that certain core traits of personality may remain relatively constant throughout short-term interventions. The observations highlight the potentiality of integrating yoga with modified recreational activities as a comprehensive, non-pharmacological strategy to support psychological well-being in middle age. Such programs may be especially beneficial for improving emotional balance and social adjustment among women of this age group.

Further study with larger sample sizes and longer intervention time frames is needed to investigate the long-term impact of similar programs on broader dimensions of personality and mental health.

## Acknowledgment

I am very thankful to Dr. Gopa Saha Roy, TIC Dept. of Physical Education, The University of Burdwan, West Bengal, India.

## References

1. Thomas, A. N., Mitchell, E. S., & Woods, N. F. (2018). The challenges of midlife women: Themes from the Seattle Midlife Women's Health Study. *Women's Midlife Health*, 4(1).
2. De Zavala, A. G., Lantos, D., & Bowden, D. (2017). Yoga poses increase subjective energy and state self-esteem in comparison to "power poses." *Frontiers in Psychology*, 8.
3. Shohani, M., Badfar, G., Nasirkandy, M. P., Kaikhavani, S., Rahmati, S., Modmeli, Y., Soleymani, A., & Azami, M. (2018). The effect of yoga on stress, anxiety, and depression in women. *International Journal of Preventive Medicine*, 9(1).
4. Sethi, J. K., Nagendra, H., & Ganpat, T. S. (2013). *Yoga improves attention and self-esteem in underprivileged girl students. Journal of Education and Health Promotion*, 2(1).
5. Caldwell, L. L. (2005). Leisure and health: Why is leisure therapeutic? *British Journal of Guidance & Counselling*, 33(1), 7–26.
6. Iwasaki, Y. (2007). Leisure and quality of life in an international and multicultural context: Major pathways linking leisure to quality of life. *Social Indicators Research*, 82(2), 233–264.
7. Costa, P. T., Jr., & McCrae, R. R. (1992). *Revised NEO Personality Inventory (NEO-PI-R) and NEO Five-Factor Inventory (NEO-FFI) professional manual*. Psychological Assessment Resources.
8. Kirkcaldy, B. D., Furnham, A., & Siefen, G. (2005). The relationship between health efficacy, educational attainment, and well-being among 30 nations. *European Psychologist*, 10(4), 297–312.
9. Kirkcaldy, B. D., Furnham, A., & Siefen, G. (2005). The relationship between health efficacy, educational attainment, and well-being among 30 nations. *European Psychologist*, 10(4), 297–312.
10. Eysenck, H. J. (1990). Biological dimensions of personality. In L. A. Pervin (Ed.), *Handbook of personality: Theory and research*, 244–276. Guilford Press.
11. Brown, R. P., & Gerbarg, P. L. (2005). Sudarshan Kriya yogic breathing in the treatment of stress, anxiety, and

- depression: Part I—Neurophysiologic model. *Journal of Alternative and Complementary Medicine*, 11(1), 189–201.
12. Streeter, C. C., Gerbarg, P. L., Saper, R. B., Ciraulo, D. A., & Brown, R. P. (2012). Effects of yoga on the autonomic nervous system, gamma-aminobutyric acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *Medical Hypotheses*, 78(5), 571–579.
  13. Iso-Ahola, S. E. (1997). A psychological analysis of leisure and health. *Leisure Sciences*, 19(2), 117–130.
  14. Gulam, A. (2016). Recreation: Need and importance in modern society. *International Journal of Physiology, Nutrition and Physical Education*, 1(2), 157–160.
  15. Iwasaki, Y. (2007). Leisure and quality of life in an international and multicultural context: What are major pathways linking leisure to quality of life?. *Social Indicators Research*, 82(2), 233–264.
  16. Kauts, A., & Sharma, N. (2009). Effect of yoga on academic performance in relation to stress. *International Journal of Yoga*, 2(1), 39–43.
  17. Sharma, N. K. (2018). *Effect of yogic and recreational activities for improving maladaptive and distressed behaviour of autistic children*. (Doctoral dissertation). Shodhganga.
  18. Shohani, M., Badfar, G., Nasirkandy, M. P., Kaikhavani, S., Rahmati, S., Modmeli, Y., Soleymani, A., & Azami, M. (2018). The effect of yoga on stress, anxiety, and depression in women. *International Journal of Preventive Medicine*, 9(1).
  19. Streeter, C. C., Gerbarg, P. L., Saper, R. B., Ciraulo, D. A., & Brown, R. P. (2012). Effects of yoga on the autonomic nervous system, gamma-aminobutyric acid, and allostasis in epilepsy, depression, and post-traumatic stress disorder. *Medical Hypotheses*, 78(5), 571–579.
  20. Telles, S., Singh, N., & Balkrishna, A. (2013). Managing mental health disorders resulting from trauma through yoga: A review. *Depression Research and Treatment*.
  21. Singh, A., & Singh, G. (2024). Effects of Anapanasati meditation technique on physiological parameters of university students. *International Journal of Yogic, Human Movement and Sports Sciences*, 9(1), 384–388.
  22. Mondal, P., & Mazumder, S. (2024). Unveiling the combined effect of brisk walking with recreational activities on the physiological parameters of middle-aged women. *International Journal of Physical Education, Sports and Health*, 11(4), 01–05.
  23. Kumar, S., Sahu, M., & Ghosh, K. (2025). Evaluating the effects of yoga on body mass index and heart rate among individuals with substance use disorder: A randomized controlled trial. *Applied Psychophysiology and Biofeedback*.
  24. Paulraj, V. A., & Parasuraman, T. (2026). Integrative effects of vinyasa yoga and animal flow exercises on sprint performance and physiological adaptations in adolescent male sprinters. *Physical Education Theory and Methodology*, 26(1), 168–176.
  25. Lopez, H. T. (2000). *The effects of play intervention on Hispanic children's reading achievement, self-concept, and behaviour*. (Doctoral dissertation, University of North Texas). University of North Texas Digital Library.
  26. Özkan, T. K., Çiğdem, Z., Kale, E. S., & Kale, Y. (2025). The effect of mother-baby yoga on mother's depression-anxiety-stress levels, perception of fragile baby, and maternal bonding: A randomized controlled trial. *Journal of Pediatric Nursing*, 85, 171–180.
  27. Chiang, H., Lin, F., & Hwu, Y. (2013). Disability assessment. *Journal of Nursing Research*, 21(2), 83–93.
  28. Watkins, P. C., Uher, J., & Pichinevskiy, S. (2015). Grateful recounting enhances subjective well-being: The importance of grateful processing. *The Journal of Positive Psychology*, 10(2), 91–98.
  29. Delle Fave, A., & Massimini, F. (2003). Optimal experience in work and leisure among teachers and physicians: Individual and bio-cultural implications. *Leisure Studies*, 22(4), 323–342.
  30. K. Kumar, L. N. Joshi, S. Verma, & P. Singh (2025). Yoga as art and science of living. In (Eds.), *Souvenir* (First Edition, 2025). Indian Association of Yoga.
  31. Nyicyor, R., Sohng, T., & Dutta, J. (2016). A comparative study on intelligence of secondary school students of Arunachal Pradesh. *International Journal of Science and Research*, 5(8).
  32. Dastour, H., & Hassan, Q. K. (2024). Quantifying the influence of climate variables on vegetation through remote sensing and multi-dimensional data analysis. *Earth Systems and Environment*, 8(2), 165–180.
  33. B C, M., E, M., & Venugopal T. (2025). An investigation of selected psychological variables among women Yoga and Non-Yoga practitioners. In *International Journal of Innovative Research in Technology*, 11(12), 4168–4169.
  34. Lee, Y., McCauley, C. R., & Draguns, J. G. (2013). Personality and person perception across cultures. In *Psychology Press eBooks*.
  35. Shukla, H. (2025). Alanced Living: A Brief study to yoga and Naturopathy. *International Multidisciplinary Research Journal Reviews*, 1(4).
  36. Fave, A. D., & Massimini, F. (2003). Optimal experience in work and leisure among teachers and physicians: Individual and bio-cultural implications. *Leisure Studies*, 22(4), 323–342.

