

# Impact of Yogic Practices Including Breathing Techniques on Personality Traits among Middle-Aged Women: A Short Review

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## Abstract

Middle-aged women often face some burden of career, family, and menopausal transitions, which can disrupt emotional health. While yoga is a known de-stressor, the specific role of yogic breathing (pranayama) regulate core personality dimensions remains less explored. The objective of the present review was to examine how regular yogic breathing practices help develop positive personality traits and maintain emotional stability in middle-aged women. A systematic search was conducted across the databases like Google Scholar, PubMed, Science Direct and Scopus. Following a rigorous searching process using the terms such as 'yogic breathing', 'pranayama', 'personality traits' and 'middle-aged women', six experimental studies were selected and analysed. Based on the empirical evidences, studies reveal that breathing techniques significantly improve emotional stability by reducing Neuroticism and impulsive behaviours connected with Psychoticism. Practitioners showed a shift toward 'Sattva' (balance), which associated with higher emotional regulation and neighbourly, stable Extraversion. Compared to women who do not practice it, those who practice breathing exercises showed less anxiety and better self-control, which helps them stay mentally stable during midlife. It helps reduce nervousness and emotional instability and supports a more balanced and confident nature. So, the current short review may conclude that yogic breathing is a helpful practice for improving the personality traits of middle-aged women. However, in the future, more long-term studies should be done to understand how different breathing techniques affect personality traits development over time.

**Keywords:** pranayama, psychological wellness, yogic breathing, personality traits, middle-aged women.

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## INTRODUCTION

Yoga has evolved from an ancient Indian spiritual practice into way of life. The scientific nature of yogic practice was first revealed in 1920, when Swami Kuvlyanandaji started his scientific research in the field (Khatun & Bandhpadhya, 2016). Presently yoga is widely recognized as a holistic practice that improves both physical and psychological health (Ramesh *et al.*, 2019). It is a combination of movements, breathing, and meditation. This is used to help integrate the body and the mind (Bandyopadhyay *et al.*, 2025). In yoga, one of the main focuses is breathing, which is referred to as pranayama in yogic terminology, and has been proved essential for mental and emotional balance (Bandyopadhyay *et al.*, 2023). Literature reveals that pranayama, the yogic breathing practice is a spiritual discipline that refines consciousness, raises vitality and harmonises the autonomic nervous system. Controlled breathing has also been shown to positively impact

psychological well-being by lessening anxiety and stress, and controlling negative emotions (Tellhed *et al.*, 2019). Several scientific studies have examined the psychological effects of yoga-based practices, including Pranayama and meditation and have reported improvements in mental health and emotional well-being among individuals who regularly practice yoga. Curtis *et al.*, (2011) found that an eight-week of yoga intervention improved psychological functioning and mindfulness among women with chronic pain. Similarly, Yoshihara *et al.*, (2014) reported that a twelve-week yoga training along with breathing practices program significantly reduced psychological symptoms and stress levels in healthy women. These findings suggest that yogic practices can help individuals manage stress and improve emotional balance.

Personality is one of the most important factors for psychological wellness and for overall quality of life.

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Personality refers to relatively stable patterns of thinking, feeling, and behaving, which can greatly contribute to a positive outlook and approach towards life. Traits such as emotional stability, confidence, self-control, and optimism are essential for effective coping with stress and also for the maintenance of social relationships. During the course of life, especially in the middle decades of life, the interaction of personality and emotional equilibrium is vital due to the numerous and often volumetric physical, social, and psychological transformations that occur. Middle-aged women, in particular, are often burdened with the tri-focal roles of family, career, and community. Furthermore, there are menopausal related hormonal changes that can disrupt the women's moods, emotional stability and psychological wellness (Burger, 2002; Huang *et al.*, 2013). All of these stressors point to the urgent need for innovative and effective approaches for the sustenance of psychological wellness and strengthening of the positive personality traits for middle-aged women.

Yogic practices have also been linked with positive changes in personality traits. Positive personality traits promote and enhance the quality of everyday thinking, behaviour, emotion regulation, and social interaction. Research has shown that yogic practices, including Pranayama may influence personality by promoting calmness, self-awareness, and emotional control. Deshpande *et al.*, (2009) reported that yogic breathing practice improved personality characteristics based on the concept of *gunas*, where the quality of *sattva* (balance and harmony) increased, while *rajas* and *tamas*, which are associated with restlessness and inertia, decreased among the women of 18-77 years. Another study by Yadav *et al.*, (2012) demonstrates that a yoga-based lifestyle program improved subjective well-being and personality characteristics among participants. These results indicate that yogic practices may help individuals develop more balanced and positive personality traits. Though studies revealed that yoga is beneficial for mental health but nowadays people, especially the women in their middle age, are not getting much time for practicing the whole part of yoga; rather they are interested in doing small space, easy performing few practices that can benefit remarkably. In that context, among the various forms of yoga, the yogic breathing techniques are of the greatest influence on the physiological and psychological development of practitioners (Bandyopadhyay *et al.*, 2026). Certain breathing techniques, like pranayama (alternate nostril breathing, anuloma viloma, bhastrika, shitali, shikari, bhrumri, diaphragmatic breathing, etc.), which may be practiced anywhere, at any time and in any posture. Sudarshan kriya, a form of yogic breathing practices, are effective in enhancing relaxation and emotional adjustment (Zope & Zope, 2013). Sudarshan kriya was the first form of yoga and breathing practice to be studied and shown to reduce the levels of anxiety in adults and to also positively affect their levels of antioxidants (Agte & Chiplonkar, 2008). The practice of breathing

techniques improves mindfulness and aids in the management of stress, both of which are precursors to emotional regulation and the development of one's personality (Tellhed *et al.*, 2019). Regular practice of breathing techniques can result in enhanced levels of self-control and self-regulation, as well as calmness and other traits which are a part of a well-developed personality.

Though there are many psychological benefits of yoga that have been studied, but the literature lacks in gathering and summarising the scientific evidence that addressed psychological effects of yogic breathing and personality development of middle-aged women. Most research remains general with yoga and psychological benefits without isolating specific personality traits. Therefore, there is a need to gather and present the existing studies concerning yogic breathing and personality development. From this point of view, the present study aims to conduct a brief review on previous research studies on the role of yogic breathing practices in personality development among middle-aged women. Understanding the influence of yogic breathing practices may help researchers, health professionals, and educators develop effective interventions for improving mental health and personality development among middle-aged women. The findings of this review may also provide useful directions for future research in the field of yoga and psychological well-being.

## METHODOLOGY

### Search Strategy:

This article followed a brief systematic review design to examine the available research on the effect of yogic breathing practices on personality traits among middle-aged women. A systematic search of the literature was conducted to identify relevant studies related to the research objective. These databases included Google Scholar, PubMed and Scopus. Different keywords and search terms were used to locate relevant studies. The main keywords included "yogic breathing," "pranayama," "personality traits," "personality development," "psychological outcomes," and "middle-aged women." These keywords were combined using Boolean operators, 'AND' and 'OR', to improve the search results. The reference lists of relevant articles were also checked to identify additional studies that were not found during the initial database search.

**Inclusion Criteria:** The current review study followed the following inclusion criteria-

- Studies focusing on yogic practice, including breathing techniques or pranayama as the primary independent variable.
- Studies that investigated personality traits as a dependent variable.
- Studies that focused on middle-aged women or adult female participants.
- Studies that were written in the English language.

- e. Studies that employed experimental, pre-post, randomised controlled trial, comparative study design.

**Exclusion Criteria:** The following types of studies were excluded from the review-

- The articles which have not been described the study design in detail.
- Studies that were editorials, conference proceedings, or review studies.

### Study Selection Process:

The selection of studies was completed in several stages following the PRISMA guidelines, and is illustrated in the PRISMA flow diagram (Figure 1). Initially, all searched articles' titles and abstracts were screened for relevance. Articles were eliminated if they did not meet the inclusion criteria. Subsequently, the full text for the remaining articles was screened for relevance, and sufficient eligibility was determined. Finally, the articles that met the inclusion criteria were considered.

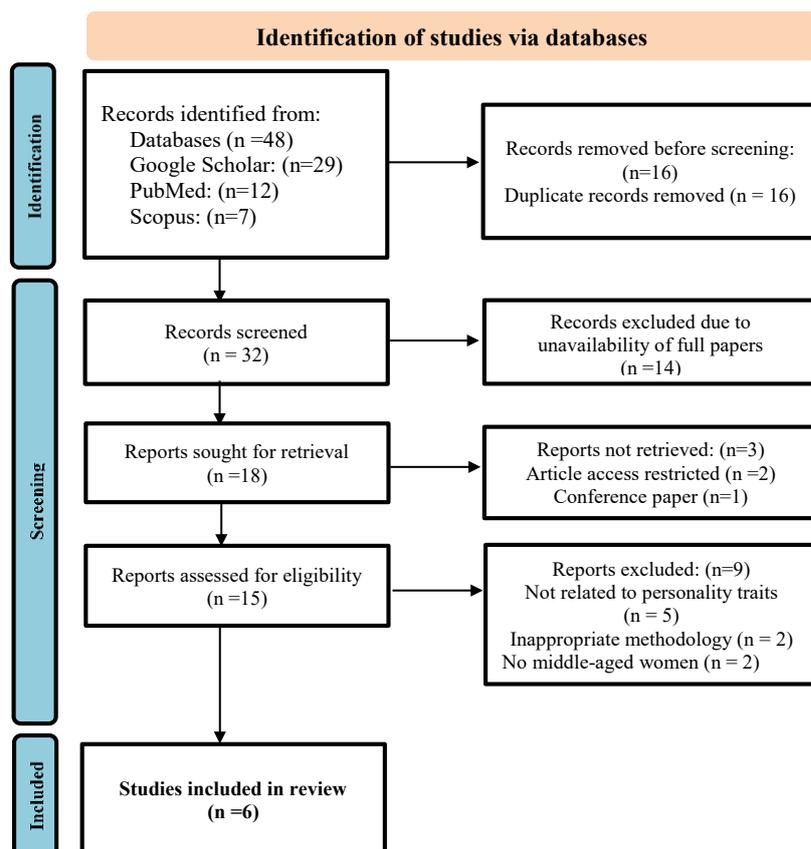


Figure 1: Flow diagram of the selection of the articles

### Critical Assessment

The studies were critically evaluated using the Critical Appraisal Skills Programme (CASP) standardized approach (CASP Checklists - Critical Appraisal Skills Programme, n.d.), which consists of 10–12 questions with response options of “yes,” “no,” and “can’t tell,” depending on the study design (e.g., RCT, pre–post, comparative, etc.). The articles were independently assessed by three reviewers, and those that fulfilled average criteria were included in the present review.

A total of six studies (Coco *et al.*, 2020; Deshpande *et al.*, 2009; Irani, 2013; Kashyap, 2014; Khemka *et al.*, 2011; Yadav *et al.*, 2012) were included in the present review, comprising one randomized controlled trial (RCT) (Deshpande *et al.*, 2009), two comparative studies (Coco *et al.*, 2020; Kashyap, 2014), and three pre–post studies (Irani, 2013; Khemka *et al.*, 2011; Yadav *et al.*, 2012). Overall, the studies involved 580 participants aged 17–71 years, including 288 females; however, one study did not specify the number of female participants. Among six studies, five studies (Coco *et al.*, 2020; Deshpande *et al.*, 2009; Irani, 2013; Khemka *et al.*, 2011; Yadav *et al.*, 2012) mentioned particular yogic breathing practices like pranayama, sudarshan kriya in their intervention protocol, but one

## RESULTS

study (Kashyap, 2014) did not mention a particular breathing practice but this review included that particular study because any kind of yoga practice maintains a certain kind of breathing protocol. Out of the six studies, four studies (three pre–post studies and one RCT) reported that the intervention group showed significant

improvement in personality traits. In the other two comparative studies, the yoga group demonstrated significantly better scores in personality traits compared to the non-yoga practitioner group. The summary of the included study characteristics is shown in Table 1.

**Table 1: The summary of the included study characteristics**

Author (s) & Year	Participants (Number, Age, Sex & Group)	Study Design	Intervention Detail	Variables Measured with specific domain	Outcomes
(Deshpande <i>et al.</i> , 2009)	Healthy adults (n=174), 18-71 years, M (97) & F (77); EG= 87 ACG= 87	RCT	yoga intervention including breathing TD= 8 weeks Fr= 6days/week S= 1hour	Personality based on gunas (Sattva, Rajas, Tamas), self-esteem	Significant positive impact on Sattva (balance and calmness), self esteem and significant reduction of Tamas guna (personality).
(Khemka <i>et al.</i> , 2011)	Adults (n=108), 17-63 years, M & F	One-group pre post	Integrated yoga involving Pranayama & meditation TD= 1 month S= 45-60 min	Psychological variables- guna personality (sattva, rajas and tamas)	Significant favourable effect on psychological health, personality-related variables (guna), emotional balance and self-control.
(Yadav <i>et al.</i> , 2012)	Adults (n=90), 41.37 ± 13.91 years, M (46) & F (44) EG=45 CG= 45	Pre-post	yoga intervention including breathing TD= 10 days	Personality traits and subjective well-being- neuroticism, extraversion, openness to experience, agreeableness, conscientiousness	Significant beneficial impact on personality traits, psychological well-being
(Irani, 2013)	Adults (n=74), 25-55 years M (41) & F (33)	One-group pre post	Sudarshan Kriya TD= 6 months Fr= 6days/week S= 1hour/ day	Personality traits- satvik, rajasic and tamasik	Significant positive impact on satvik, marginal on rajasic and significant decrease on tamasik personality
(Kashyap, 2014)	Working women; (n=80), 30-40 years, YP= 37 NYP= 43	Comparative study	Not mentioned in particular	Personality characteristics- psychoticism, extraversion and neuroticism	YP showed less psychotic and better emotional stability on positive personality traits.
(Coco <i>et al.</i> , 2020)	Adult women (n=54) 40-62 years, EG=27 ACG= 27	Comparative study	Vinyasa yoga including breathing TD=1-34 years (training experience) Fr= 2days/week	Personality traits- self-esteem, openness, conscientiousness, energy, agreeableness, emotional stability	YG showed better personality traits and self-confidence with proper body perception

Note. PE=physical exercise, TD= total duration, Fr= frequency, S= Session, YP= Yoga practitioner, NYP= non yoga practitioner, ACG= active control group, n= number of the participants

## DISCUSSION

In the current review total six studies on effect of yogic practices including particular breathing techniques on different traits of personality were critically studied and analysed. The personality traits

particularly include domains like gunas (Sattva, Rajas, Tamas), self-esteem, psychoticism, neuroticism, extraversion, openness to experience, agreeableness, conscientiousness, energy, emotional stability etc. Out of six studies, the study conducted by Deshpande *et al.*,

(2009) was a randomized controlled trial to see the effect of yogic practices, including breathing, on one's personality through the classical theory of gunas, and it was found that there was a significant increase in the presence of sattva, which denotes balance, calmness, clarity and positive behaviours. At the same time, there was a reduction in the presence of rajas (restlessness and overactivity) and tamas (inactivity and dullness). This shows that yogic breathing practices of eight weeks of one-hour session for six days per week can lead to more positive and balanced personality traits. Research conducted by Khemka *et al.*, (2011) also determined the positive effects on personality traits after one month of integrated yoga with pranayama and meditation practices. The study reported that the individuals engaged in yogic breathing training showed a distinctive positive personality characteristic, including greater self-control and emotional balance, which are important aspects for the growth of positive personality. In that same line of thought, Yadav *et al.*, (2012) reported that the beneficial effects on personality characteristics after 10 days of comprehensive yoga-based breathing intervention. Personality traits changes are common in mental illness. But long-term physical disease can also change a person's personality. It also affects how people take care of their health and how well they recover. High neuroticism and low conscientiousness are linked with body inflammation and a substance called interleukin-6. So, when neuroticism decreases, personality can improve and inflammation may also reduce. This is helpful for lifestyle diseases. Further, the researchers (Yadav *et al.*, 2012) in their study used the Five Factor personality model, which is a reliable way to understand main personality traits and their relation to health behaviour. Overall, the study showed positive changes in the participants' personality. This may mean a better quality of life, a more positive mindset, and better self-rated health. A study by Irani *et al.*, (2013) examined the personality traits and outcomes of Sudarshan kriya practices on women aged 25-55 years. The findings indicated that Sudarshan kriya practice of six months of one-hour session of 6 days per week can positively influence personality-related characteristics, particularly emotional regulation and psychological stability. In another experimentation Kashyap (2014) studied the personality traits of yoga and non-yoga practitioners amongst working women of 30-40 years and found that the yoga practitioners particularly followed breathing technique had comparatively better emotional stability, greater self-control and more even personality characteristics than the non-yoga practitioners. This observation points to the positive impact of yoga on the development of a healthy personality. Further, in another study Coco *et al.*, (2020) examined the effects of vinyasa yoga practice including breathing on personality and body image among women above forty years of age. The study reported that weekly twice on a regular basis yoga practice, especially breathing practices (for 1-34 years) that has the positive impacts on personality traits related

to self-confidence, self-perception, and emotional well-being.

The results of this short review suggested that yogic practice, particularly the breathing practices, can support personality growth, psychological well-being, emotional stability, self-control and psychological adjustment in middle-aged women. Through such mechanisms, breathing-oriented practices contribute to the development of patience, calmness, and self-awareness. Hence, finally, the findings indicate that emotional regulation and psychological balance are essential for personality development and that yogic breathing practices contribute to these ends.

### Study Limitations and strength

The current review marked a number of limitations, such as the included studies demonstrated heterogeneity in their research designs, including comparative, pre-post, and randomized controlled trial (RCT) approaches. Another limitation lies on the insufficient reporting of intervention details in several studies. Furthermore, experimental research examining the impact of yogic breathing practices on personality traits among middle-aged women remains limited.

Though the study has a few limitations, it has strengths too. Particularly, the personality traits of middle-aged women are often affected by the increasing workload associated with both responsibilities at home and professional commitments. Therefore, maintaining psychological well-being and balanced personality traits are essential for supporting their daily functioning and overall quality of life. In that context, the findings of this review indicate that yogic practices, including pranayama and other breathing techniques has beneficial effects on personality traits such as psychoticism, extraversion, and neuroticism, self-control and emotional well-being and overall, the mental well-being. Moreover, the current review is the rarest review study, particularly in this domain. Hence, regular yoga practice, including breathing exercises, for at least two days per week, is recommended to help maintain and improve the wellness of personality traits of middle-aged women.

### CONCLUSION

The study concluded that the influence of yoga and breathing exercises is felt across different aspects of personality. With regular practice, people displayed improvements with emotional stability, self-awareness, self-control and psychological equilibrium. Several studies also noted the development of more positive personality traits like calmness, clear-mindedness, and psychosocial equilibrium. These findings indicate that the practice of yogic breathing may enable individuals to attain a more positive personality. However, the majority of studies have been examining yoga and its general practices, not the breathing practices specifically, and included a variety of age groups. Therefore, it is

important to carry out more particular studies on the yogic breathing exercises and its impact on the personality traits and psychological well-being of middle-aged women.

## REFERENCES

- Agte, V. V., & Chiplonkar, S. A. (2008). *Sudarshan Kriya* Yoga for Improving Antioxidant Status and Reducing Anxiety in Adults. *Alternative and Complementary Therapies*, 14(2), 96–100. <https://doi.org/10.1089/act.2008.14204>
- Bandyopadhyay, N., Das, T., & Biswas, A. (2026). Yogic Breathing Practices a Non-Pharmacological Alternative Medicine for Managing Pulmonary Functions of Healthy Adults: A Systematic Review and Meta-analysis. *Indian Journal of Community Medicine*, 10.4103/ijcm.ijcm\_929\_24. [https://doi.org/10.4103/ijcm.ijcm\\_929\\_24](https://doi.org/10.4103/ijcm.ijcm_929_24)
- Bandyopadhyay, N., Das, T., Biswas, A., & Mondal, D. (2023). Effects of Mindfulness-Based Stress Reduction Program on Mental Health of Non-Clinical Older Adults. *International Journal of Aging Health and Movement*, 5(2), 16–23. <https://doi.org/10.7575/ijahm.v5i2.105>
- Bandyopadhyay, N., Das, T., & Mondal, S. (2025). Practicing Surya Namaskar: A Sequence of Yogic Postures for Overall Health and Wellness among Healthy Adults. *Physical Education Theory and Methodology*, 25(2), 416–425. <https://doi.org/10.17309/tmfv.2025.2.24>
- Burger, H. G. (2002). Hormonal Changes in the Menopause Transition. *Recent Progress in Hormone Research*, 57(1), 257–275. <https://doi.org/10.1210/rp.57.1.257>
- CASP Checklists—Critical Appraisal Skills Programme. (n.d.). CASP - Critical Appraisal Skills Programme. Retrieved March 12, 2026, from <https://casp-uk.net/casp-tools-checklists/>
- Coco, M., Buscemi, A., Sagone, E., Pellerone, M., Ramaci, T., Marchese, M., Perciavalle, V., Perciavalle, V., & Musumeci, G. (2020). Effects of Yoga Practice on Personality, Body Image and Lactate. Pilot Study on a Group of Women from 40 Years. *Sustainability*, 12(17), 6719. <https://doi.org/10.3390/su12176719>
- Deshpande, S., Nagendra, H., & Raghuram, N. (2009). A randomized control trial of the effect of yoga on Gunas (personality) and Self esteem in normal healthy volunteers. *International Journal of Yoga*, 2(1), 13. <https://doi.org/10.4103/0973-6131.43287>
- Huang, F.-J., Chien, D.-K., & Chung, U.-L. (2013). Effects of Hatha Yoga on Stress in Middle-Aged Women. *Journal of Nursing Research*, 21(1), 59–66. <https://doi.org/10.1097/jnr.0b013e3182829d6d>
- Irani, D. F. (2013). Effect of Yogic Practices (Sudarshan Kriya) on Personality. *Journal of Research in Medical Education & Ethics*, 3(1), 90–93. <https://doi.org/10.5958/J.2231-6728.3.1.014>
- Kashyap, N. N. (2014). A comparative study of personality characteristics between yoga practitioner and non-yoga practitioner working women. *International Journal of Physical Education, Sports and Health*, 1(1), 44–46. <https://www.kheljournal.com/archives/2014/vol1issue1/PartA/8-1-53-476.pdf>
- Khatun, A., & Bandhpadhya, N. (2016). Effect of aerobic training and hatha yoga on vital capacity of college female students. *International Journal of Academic Research and Development*. <https://www.semanticscholar.org/paper/Effect-of-aerobic-training-and-hatha-yoga-on-vital-Khatun-Bandhpadhya/04378f9eb7c3a259ed4972091518069f41abab40>
- Khemka, S. S., Ramarao, N. H., & Hankey, A. (2011). Effect of integral yoga on psychological and health variables and their correlations. *International Journal of Yoga*, 4(2), 93–99. <https://doi.org/10.4103/0973-6131.85492>
- Ramesh, P., Mariappan, S., & Sethu, S. (2019). Effect of yogic practices on selected physiological and psychological variables among middle aged stressed women. *International Journal of Physiology, Nutrition and Physical Education*, 4(1), 1812–1815. <https://www.journalofsports.com/pdf/2019/vol4issue1/PartAM/4-1-446-627.pdf>
- Tellhed, U., Daukantaitė, D., Maddux, R. E., Svensson, T., & Melander, O. (2019). Yogic Breathing and Mindfulness as Stress Coping Mediate Positive Health Outcomes of Yoga. *Mindfulness*, 10(12), 2703–2715. <https://doi.org/10.1007/s12671-019-01225-4>
- Yadav, R., Magan, D., Mehta, M., Mehta, N., & Mahapatra, S. (2012). A short-term, comprehensive, yoga-based lifestyle intervention is efficacious in reducing anxiety, improving subjective well-being and personality. *International Journal of Yoga*, 5(2), 134. <https://doi.org/10.4103/0973-6131.98235>
- Zope, S., & Zope, R. (2013). Sudarshan kriya yoga: Breathing for health. *International Journal of Yoga*, 6(1), 4. <https://doi.org/10.4103/0973-6131.105935>