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A SYSTEMATIC AND SCIENTIFIC EFFECT OF DIVERSE INTEGRATED MODULES OF YOGIC PRACTICES ON CHOSEN PHYSIOLOGICAL VARIABLES AMONG MIDDLE AGED WOMEN

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Abstract
The research aimed to determine the systematic and scientific effect of diverse unified meditation focuses on certain biological variables in middle-aged women. For the research, only 45 Women were chosen from the Sivagangai Municipality and its environs. They ranged in age from 35 to 55. There were three groups: Surya Namaskar (n = 15), Asanas (n = 16), and the Controller Collection (n = 15). There were three identical teams, each with fifteen competitors. For thirteen weeks, the instruction was available seven days weekly. Only a 45-minute instructional session was required. No particular instructions were given to Group III, the oversight team. The resting pulse rate is measured by beats per minute. The Experimentation and Controlling groups provided the information. Use the Analysis of Covariance (ANCOVA) and the conditional "t" test for statistical examination. The corrected post-test means' "F" ratio was deemed statistically important. A predefined degree of sureness of 0.05 was applied to each case.

Keywords: Surya namaskar, Asanas, Middle-aged women

INTRODUCTION

Yoga comes from the word "yuj," which means "to yoke," and refers to the discipline of bringing the body and mind into alignment for spiritual purposes. Through awareness-based physical postures (asanas), breath control (pranayama), meditation (dhyana), mantras, lifestyle modifications, and spiritual beliefs, yoga practices seek to calm the mind's agitations. Yoga has evolved into yoga therapy, which incoporates various yogic means of resolving a range of psychological and physical issues.
By attempting to meet the diverse needs of practitioners, contemporary yoga has significantly evolved from the traditional style. It is now necessary to transition the quality of yoga research, as the earliest scientific literature from PubMed records dates back to 1948. Between 1948 and 2021, 6628 articles using the term "yoga" were published in PubMed, with 75.9% of these studies published in the last ten years. There are several reasons to support this recent exponential increase in yoga products:

- its widespread use as an inexpensive, no pharmacological method of stress reduction and health promotion;
- the global movement in medicine toward integrative practices and prevention;
- interest in yoga as a means of fostering interpersonal connections; and
- growing backing from national and international research organizations and academic research

It is essential to choose interventions carefully given the explosion of yoga research over the last ten years. The researchers' PubMed search revealed that 306 randomized controlled trials (RCTs) used 52 different yoga styles, with Hatha Yoga, Iyengar Yoga, and Integrative Approach to Yoga Therapy (IAYT) being the most popular. Comparing research on yoga is difficult. It is challenging to determine which type of yoga is more effective because the majority of research on the subject has produced good findings.

Common yoga methods, standardization of its application technique, and openness in reporting can all help allay these worries.

A yoga component is often thought of as a collection of yoga techniques combined in a coordinated manner over a predetermined amount of time in order to accomplish a particular objective. The authors' opinions on creating and approving yoga modules diverge. The process of developing a yoga module typically begins with a search for suitable practices in traditional and scientific literature. Validation of these methods is aided by expert opinion and consensus. The designed yoga module has frequently been validated using Lawshe's content validity ratio or the Delphi iteration method. To demonstrate the module's practicability, its feasibility is examined.

Replicability in yoga research is made possible by a methodical approach to the production of yoga modules, which can assist in identifying the precise elements of yoga and its validity. The series is often practiced in the morning facing the rising sun, but it can be done at any time of the day. Each posture stretches, flexes, or strengthens different parts of the body, providing a holistic workout for physical and mental well-being.

"Asana" is a Sanskrit term used in yoga, referring to a physical posture or position. In yoga practice, an Asana typically involves assuming a specific body posture while focusing on breath control and mindfulness. They vary in complexity and purpose, targeting various physical parts and aspects of well-being. Examples include Mountain Pose (Tadasana) [1], Downward-Facing Dog (AdhoMukhaSvanasana), Warrior Pose (Virabhadrasana), and many others, each with its unique benefits and effects on the body and mind.

A common cardiovascular disease, hypertensive is a major global health concern, especially for middle-aged women. There has been increased interest in using alternative treatments, like yoga, as a possible treatment for hypertension. With its roots in ancient Indian customs, yoga offers a comprehensive approach to wellbeing by combining physical postures [2], breath control, and meditation. Although work has examined the broad advantages of yoga, little of it has particularly examined how practice affects physiological factors in middle-aged antihypertensive women.

LITERATURE REVIEW

The goal of this research is to evaluate the creation and validation processes used by different researchers and offer a paradigm for future comparable efforts. As far as we are aware, no other research has thoroughly examined the body of literature on the development of different yoga modules [3]. However, one study detailed how to create yoga RCT; this study does not concentrate on the process of validating yoga modules. For researchers as well as stakeholders to claim the quality of trials, it can be useful to have a defined process for creating yoga modules.

The goal of the MBBS program is to develop a primary care physician for initial contact. Additionally, it portrays the learner as a potential researcher, scientist, specialist, and scholar [4]. It is crucial that the competency-based undergraduate MBBS program provide opportunities for students to investigate and experience many areas of the field. For students, the chance to "work" in a clinical, laboratory, research, and community context or in a team environment early in their career is priceless since it will have a long-lasting outcome on their professional lives. In addition to providing the groundwork for future career pathways, an elective encourages pupils to think creatively and helps them consider a career beyond exams.

The quality of life may be impacted by given the critical roles that PFMs, the ANS, and the CNS play in maintaining urine continence, understanding how yoga may treat lower urinary tract symptoms (LUTS) may help those who experience it live better lives. We conducted this scoping study in order to map the relevant research in a methodical manner and to identify information gaps regarding the connection between yoga and LUTS. LUTS symptoms include stress urine incontinence (UI) [5], frequency, nocturia, and urgency regardless of the cause of incontinence, which can be caused by decreased PFM strength and ANS and CNS dysfunction.

The principles of yoga place a strong emphasis on achieving balance between the mind, breath, and physical body. According to yoga, the physical body, breath, emotions, intellect, and blissfulness are the five sheaths that make up human existence. The ancient work known as the Taittiriya Upanishad provides a detailed explanation of this philosophy of human existence, which is known as the pancha-kosha model. Human existence is also defined in Five koshas (sheaths) are described in the Brahmananda Valli and Brugu Valli sections of this text: the energetic sheath (Pranamaya kosha), the emotional sheath (Moomaya kosha), the intellectual sheath (Vijnanamaya kosha), the bliss sheath (Anan damaya kosha), and the gross sheath (Annamaya kosha) [6].

METHODOLOGY

Finding the structured, empirical effects of multiple comprehensive meditation components on a few key behavioral characteristics in middle-aged women was the aim of this investigation [7] Stopwatch-measured resting pulse rate expressed in beats per minute.

Different koshas as detailed below

A comprehensive and integrated approach takes into account appropriate yoga practices from many styles to promote health and wellness at each of the five sheaths. Additionally [8], this technique has a strong correlation with the concept of health as defined by the World Health Organization (WHO). According to the World Health Organization, health is more than just the absence of illness and impairment; it is the state of overall well-being in the physical, psychological, social, and spiritual realms. Experts have developed a thorough method known as the Integrated Approach to Yoga Therapy (IAYT) or Integrated Yoga Module (IYM) in light of the breadth of yogic study. Based on the idea of pancha-kosha, IYM prescribes yogic practices from all of the main styles of yoga to treat certain medical issues. Based on qualitative data, a study decrypted the IAYT module to recommend a set of yoga poses for various koshas, which are described here.

- Annamaya Kosha: Annamaya Kosha is primarily affected by the Yogic Diet, Loosening Exercises, Yogic Postures, and Kriyas (cleaning methods). The musculoskeletal system is systematically engaged by a comfortable and secure pose. By deeply massaging internal organs, asanas also stimulate and deeply relax them. According to Sage Patanjali, doing asanas helps the mind relax and expand naturally and effortlessly [9]. He also asserts that doing Asanas causes both sides of the mind to vanish. Physical stamina is increased, joint stiffness is decreased, and muscular strength is increased through loosening exercises. Kriyas not only cleanse the body but also offer numerous unstated advantages. A healthy diet contributes to the preservation of mental and physical balance.
- Pranamaya Kosha: The pranayamas assist to slow down the breath rate and recover autonomic balance, which calms the mind and allows the body's energy to flow freely, preparing the mind for higher practices. Breathing exercises also increase bodily awareness, correct breathing patterns, clear the lungs, and increase the size of the lungs.
- Anomaya Kosha: The mind is stimulated by meditation, devotional sessions, and bhakti yoga to support emotional culture and regulation.
- Vijnanamaya Kosha: Yoga practice (in-depth studying of a subject), lectures, counseling, and satsang (company of excellent people) all help to develop the mind. All of these dispel ignorance and impart correct information facilitates comprehension of life's reality.
- Anandamaya Kosha [10]: A condition of joyful calm with awareness, perfect equilibrium, and freedom of choice is attained through Karma Yoga (selfless service), in which the mind is free from anxious thoughts and anxieties.

The idea of anger management is taken from the classic texts, as explained below, to create a comprehensive and complete yoga module for dealing with anger.

Ancient texts claim that rage is a natural emotion that originates in manomaya kosha. This phenomenon is felt all over the body and disrupts all aspects of life (koshas). Anger causes sympathetic arousal, which alters the body's physiological processes (annamaya kosha). It causes temporary memory loss (manomaya kosha) and changes one's breathing pattern (pranamaya kosha). Additionally, it separates one from happiness (anandamaya kosha) and eliminates the ability to discriminate (vijnanamaya kosha). Numeous anger control techniques have been illustrated in several traditional writings, including the Patanjali Yoga Sutras (PYS), Yoga Vasista, Bhagavad-Gita (BG), and Upanishads. The Yama-Niyama theories of PYS offer a solid foundation for overcoming rage. Yoga Vasista provides evidence for the interconnectedness of the mind and body in the definition, diagnosis, and treatment of various ailments. In several lines, BG describes the causes of anger, its effects, and coping mechanisms. Yoga Vasista discusses the sublimation of ideas (mana prashamana), while PYS recommends physical activity (asanas), breath regulation (pranayama), and diversion (pratipaksha Bhavana). BG encourages cultivating qualities like patience, forgiveness, and ahimsa as a way to deal with anger.

Yoga is known to be beneficial for promoting mental health in schools, however, the research that is currently accessible has several flaws, including sample size, methodology, uniformity of the yoga module, lack of a control group, and study design. Reviewing research on yoga in schools and advocating for a standardized yoga curriculum.

This study intends to create an integrated and comprehensive yoga program for dealing with anger appropriate for a school setting, given the paucity of research on yoga modules for anger management.

By taking into account the yogic practices that are appropriate for all levels of existence as well as the main types of yoga, including Raja Yoga, Bhakti Yoga, and Jnana Yoga, an integrated and holistic strategy is developed.

For the study, 45 women from Karaikudi in the Sivagangai District were selected. Three comparable groups of fifteen individuals each were formed from the topics: Group III contained the untreated team, Asana was in Group II, and Surya Namaskar was in Group I [11]. Instruction was given for a whole year, every day of every week. The training sessions all lasted 45 seconds.

Integral yoga on psychological and health variables

The ability to focus on a task for the necessary amount of time is known as sustained attention. The skill might have something to do with concentrate stability, which is a marker of mental stability. Therefore, emotionality may be necessary for sustained attention.

Twenty male participants participated in a self-controlled study that assessed the immediate effects of three yoga breathing techniques on their ability to complete a letter cancellation task (LCT). Task performance was enhanced by practicing right nostril yoga breathing (Surya anuloma pranayama) and alternative nostril yoga breathing (Nadi siddhi pranayama). After practicing simple breath awareness or left nostril breathing, no discernible change was seen. The scientists concluded that as LCT demands selective attention, the anxiety-reducing benefits of pranayama may have helped improve performance.

Examined how two yoga-based relaxation methods affected participants' performance on the six-letter cancellation (SLC) test, which assessed their capacity for repetitive motor response, selective attention, focus, and visual scanning. Anxiety reduction was suggested by the fact that cyclic meditation produced a better improvement than supine rest.

Two independent control studies examined the immediate impact of two relaxation techniques, as well as the immediate effects of breath awareness and Kapalbhati, on healthy volunteers' performance on the SLC and DLS tasks [12]. They discovered that all four interventions significantly improved the participants' attention spans on both tasks.

arious definitions of emotional intelligence include "the ability to control one's own and other's emotions and feelings, to discriminate among them, and to use this data to guide one's thinking and actions"—that is, the ability to identify our feelings as well as those of others, to motivate ourselves, and to effectively manage emotions in both ourselves and relationships. According to Goleman, emotional abilities, as determined by EQ, account for around 80% of an individual's success in life.

A six-week part-time self-management of excessive tension (SMET) course for managers was evaluated for its impact on the emotional health of 170 participants in a controlled research. On four out of the five subscales, EQ scores climbed significantly.

General health encompasses physical, mental, and social well-being in addition to the absence of sickness. Yoga practice has been linked to improvements in numerous research. A modest randomized control study assessed the impact of Sahaja yoga on depression. The yoga group saw a greater decrease in anxiety and despair scores. In a study on how yoga affected the self-rated feelings of dread, anxiety, and melancholy among tsunami survivors from 2005, Indigenous people's heart and breathing rates, as well as their sleep disturbances, dramatically decreased. The approach improves mood, well-being, attention, mental focus, and stress tolerance, according to an academic review of Sudarshan Singh Kriya Vinyasa for anxiety, depression, and stress. It also appears to be a low-risk, low-cost addition to the treatment of numerous ailments and for the rehabilitation of criminals. 107 healthy adults who participated in a study on the benefits of hatha yoga reported better physical and emotional health and well-being.

In controlled pilot research assessing a thorough yogic breathing regimen, the experimental group showed improved optimism and decreased levels of stress, anxiety, and sadness. Decreased anxiety and depression were identified in an RCT comparing education programs and meditation stress management as supplements to medication for anxiety disorders [13]. Numerous health indicators are consistently improved by professionally led yoga programs, according to these findings.

The three Vedic personality types known as sattva, rajas, and tamas are known as guna attributes. While rajas have a more obsessive tendency to take action and egoism, resulting in pain and a restless mind, tamas appear as lethargy, fatigue or drowsiness blocks, and stagnation. Sattva provides peace of mind, lightness, light, control, and the start of generosity, all of which trigger constructive action [14]. By Vedic the field of psychology, these gunas continuously govern an individual's inclinations: "The gunas helplessly drive everyone to action."

Significant relationships between the self and the ideal person were discovered for the yoga category, but not for the controls, in an assessment of the effects of yoga on the gunas and self-ideal discrepancy. Tamas was linked to the difference between one's actual and ideal selves. According to a different study,

the Hare Krishna chant reduced rajas and tamas while increasing sattva. In general, yoga seeks to raise the quality of guna till sattva always rules.

There are associations between gunas and attention: gunas are linked to intelligence, memory, attention focus, sensory acuity and field independence, and cognitive traits. It has been reported that sattva has positive correlations with general intelligence, short-term memory, and attention concentration, whereas tamas has negative associations with field autonomy, short-term memory, intelligence, and attention concentration. The capacity to concentrate is inversely correlated with tamas and positively correlated with sattva.

Gunas and health correlations: A study on rajas and the painting tamas in psychological disorders identified the two main components in the patient group, indicating that mental illness is caused by a higher level of rajas and tamas. It is widely accepted that psychological discomfort results from the preponderance of rajas and tamas. Conversely, sattva guna promotes healthy functioning and good mental health. It is thought to transcend mental health issues since it embodies spiritual ideals. Similarly, those with high levels of rajas or tamas, or are more likely to get cancer, according to a research study involving 100 people with cancer.

However, sattva developed more in the group doing yoga than in the control group, according to an Experiment on gunas and health. In the group that engaged in physical exercise (control), Rajas drastically decreased. Both groups' overall health improved, which is in line with the discovery that rajas has a negative correlation with health while sattva has a favorable correlation. Details of the numerous tests used to measure these factors are provided below, based on earlier research on a variety of variables and their connections.

Examination of statistics

Table I shows the mean rested heart rate (beats each hour) values for both the control and experimental populations

Table I. Mean rested heart rate

Group	**Pre-test**	**Post-test**	**Mean difference**	**'t' ratio**
Surya namaskar Group -I	78.06	71.25	6.79	15.89
Asana Group -II	76.70	72.89	2.41	6.19
Control Group Group -III	77.26	76.10	1.12	0.93

Table I indicates the obtained 't' values of Groups I and II as well as the group in control are 15.89, 6.19, and 0.93 respectively higher beyond the 0.05 threshold of confidence's table worth 2.15 with df14. The substantial difference exists between the pre-test and experiment group's post-test averages for resting heart rate.

Table II. Calculation of the stationary pulse rate comparison of correlation (beats per minute)

Attuned Post-test	**Group -I**	**Group - II**	**Group - III**	**Spring of difference**	**Figure of Fair**	**df**	**Maliciou s honest**	**'F' quotient**
	70.85	73.25	76.19	B	213.03	2	106.53	17.94*
				W	243.32	42	5.92	

Table II indicates that the adjusted mean ethics of sleeping pulse rate for Surya Namaskar [15], Asana, and 70.85, 73.25, and 76.19 are those of the counterpart sample. At the 0.05 level of confidence, the calculated "F" value was higher than the reported figure of 3.23 of 2,42df. It is determined that there is a substantial decrease within the baseline pulse rate adjusted post-test means.

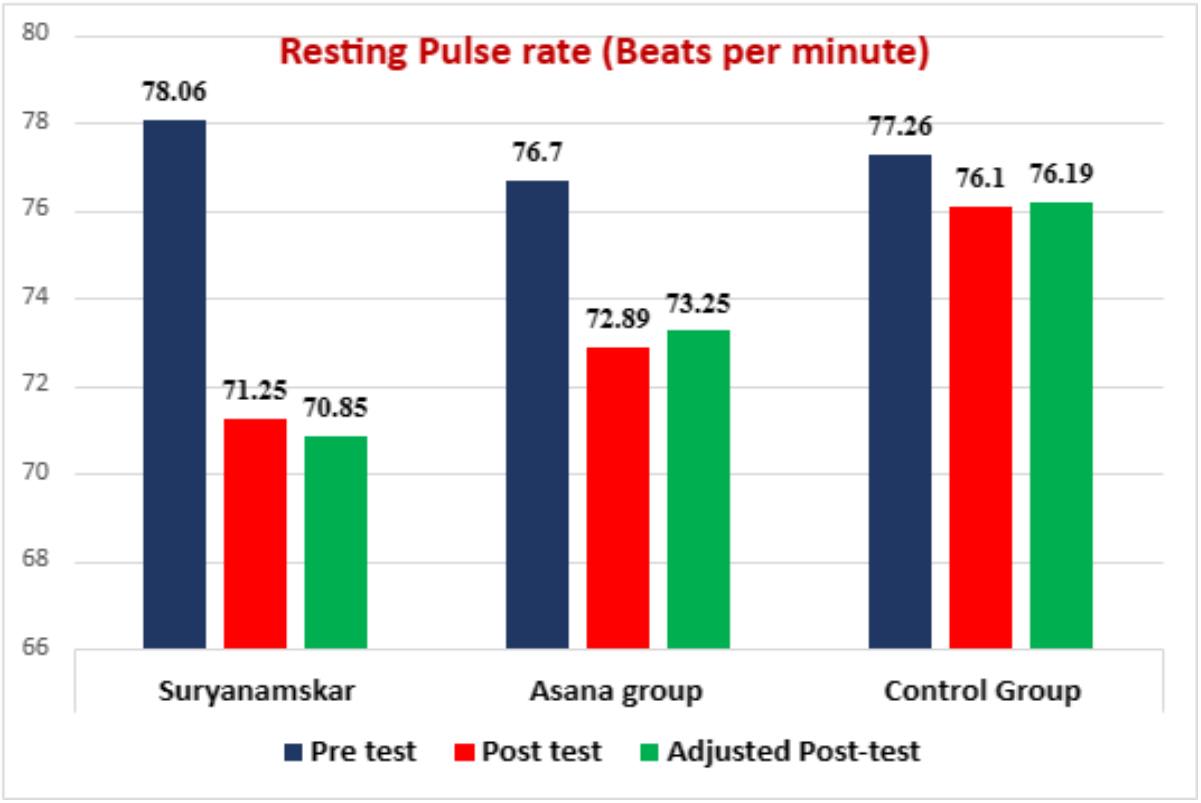

Figure 1. Resting Pulse Rate

CONCLUSION

According to the learning's answers, the Asana cluster was able to lower their more effectively than the remainder of the group in terms of resting breathing. There was no rise in the controller group's undeveloped pulsation rate.

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