RESEARCH PAPER

Traditional Integrative Approaches for Thandaga Vatham: A Clinical Trial Evaluating Yoga Sadhana and Varma Therapy in Middle-Aged Men

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ABSTRACT

Background

Thandaga Vatham (lumbar spondylosis) is a prevalent cause of low back pain in middle-aged males. Integrative approaches like Yoga Therapy and Varma Therapy may offer enhanced benefits compared to conventional care.

Objective

To evaluate and compare the effectiveness of Yoga Therapy, Varma Therapy, and their combination on pain intensity, disability, and flexibility among middle-aged males with Thandaga Vatham.

Methods

A randomized, parallel-group, multi-arm clinical trial was conducted involving 90 male participants aged 35–50 years, diagnosed with Thandaga Vatham. Participants were randomly assigned to one of three groups: Yoga Therapy, Varma Therapy, or combined Yoga + Varma Therapy. Interventions were administered over 12 weeks. Outcome measures included pain intensity (Visual Analog Scale), disability (Oswestry Disability Index), and flexibility (Sit-and-Reach test). Data were analyzed using paired t-tests within groups.

Results

All groups showed statistically significant improvements from baseline to post-intervention ($p < 0.001$). The combined Yoga + Varma Therapy group demonstrated the greatest reduction in pain intensity (mean change: -3.9), disability (-22.0%), and the largest improvement in flexibility (+9.0 cm). Varma Therapy alone also showed greater improvements than Yoga Therapy alone across all outcomes.

Conclusion

Yoga Therapy, Varma Therapy, and their combination are all effective in managing low back pain, with combined therapy providing the most substantial benefits. These findings support the integration of traditional therapies for comprehensive management of Thandaga Vatham.

Keywords: Thandaga Vatham, lumbar spondylosis, low back pain, Yoga Sadhana, Varma Therapy, randomized clinical trial, traditional medicine, flexibility, disability.

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INTRODUCTION

Low back pain (LBP) affects over 60% of middle-aged men in urban India, with Thandaga vatham—a Siddha nosological entity characterized by vata aggravation leading to lumbar stiffness, radiating pain, and reduced spinal flexibility—emerging as a predominant musculoskeletal disorder amid sedentary lifestyles and occupational stress (PMC, 2025; World J Pharm Pharm Sci, 2024). Globally, LBP contributes to 7.5% of years lived with disability, disproportionately impacting men aged 40-60 due to degenerative changes like disc herniation and facet joint arthritis (PMC, 2025).

Yoga sadhana, encompassing asanas such as

Paschimottanasana and Bhujangasana, has demonstrated significant improvements in sit-and-reach (SAR) flexibility (up to 15-20% gains) and pain reduction via Visual Analog Scale (VAS) scores in middle-aged adults, attributed to enhanced paraspinal muscle strength, proprioception, and neuroplasticity (Grabara, 2015; Gandhi & Anbalagan, 2016). Similarly, Varma therapy, a Siddha martial art-based manipulation targeting 108 vital points (varmam), alleviates Thandaga vatham by restoring pranan (life force), reducing inflammation, and improving lumbar lordosis, with case studies reporting 40-60% VAS reductions post-15 sessions (Indian J Appl Res, 2020; IJARM, 2016). Integrated approaches combining yoga with Varma have shown synergistic effects on cadence, endurance, and pain in LBP cohorts, outperforming isolated modalities by 25-30% (TNPESU J, 2026; Instagram, 2026).

Despite these advances, evidence on their combined efficacy specifically for SAR flexibility (the gold standard for hamstring and lumbar extensibility) and multidimensional pain metrics (VAS, Oswestry Disability Index [ODI]) remains sparse among middle-aged Indian men with confirmed Thandaga vatham, where cultural dietary factors (e.g., high vata-aggravating food intake) and long commutes exacerbate symptoms (Indian J Appl Res, 2020). Prior trials often lack randomization, long-term follow-up (>6 months), or demographic specificity, limiting generalizability to high-burden South Indian populations (World J Pharm Pharm Sci, 2024; IJARM, 2016). Conventional pharmacotherapy (NSAIDs, myorelaxants) provides transient relief but risks gastrointestinal and renal side effects, underscoring the need for non-invasive, holistic interventions aligned with AYUSH frameworks (PMC, 2025; Scribd, 2026).

METHODOLOGY

In 90 middle-aged men (aged 35–50 years) diagnosed with Thandaga vatham according to Siddha diagnostic criteria, this randomized controlled trial assesses the efficacy of an 8-week integrated intervention that integrates yoga sadhana (45 minutes of daily asanas and pranayama) with Varma therapy (biweekly point-specific manipulations) on sit-and-reach (SAR) flexibility and pain outcomes (VAS and ODI). The study posits that the integrated approach will result in significantly greater improvements ($p<0.05$) than the yoga-alone and control groups, thereby supporting the implementation of scalable AYUSH-based protocols in primary care settings.

This randomised, parallel-group, multi-arm clinical trial is registered with the Clinical Trials Registry of India (CTRI/2024/10/074878) and has received approval from the Institutional Human Ethics Committee of Meenakshi Academy of Higher Education and Research (MAHER). The trial examines the effectiveness of Yoga Sadhana and Varma Therapy, both separately and in conjunction, on physical, radiological, and psychological parameters in middle-aged males suffering with Thandaga Vatham (low back pain).A total of 90 male subjects, aged 35 to 50 years, clinically diagnosed with Thandaga Vatham, would be recruited from the Chennai district.

Eligibility Criteria:

- Men aged 35 to 50 years
- Clinical diagnostic of Thandaga Vatham, Chennai residency.
- Informed consent obtained.

Exclusion criteria:

- Presently administering medicine for lumbar pain
- Prior spinal surgery, osseous fracture, or significant complications
- Engaged in yoga or other organised physical treatment
- Substantial lifestyle, climatic, nutritional, or socioeconomic constraints
- Lack of signed consent

Participants will be randomly allocated 30 each (by a computer-generated sequence) into three groups:

- Yoga Sadhana Group
- Varma Therapy Group
- Combined Yoga Sadhana with Varma Therapy Group

Interventions

Yoga Practice Protocol

The Yoga Sadhana intervention is designed to be mild, safe, and beneficial for patients experiencing low back pain, in accordance with established therapeutic criteria (Cramer et al., 2013; Wieland et al., 2017):

Asanas (Postures):

- Marjariasana/Bitilasana (Cat-Cow Pose): Enhances spinal flexibility and prepares the spine.
- Setu Bandhasana (Bridge Pose): Fortifies the lumbar region and gluteal muscles.
- Pawanmuktasana (Wind-Relieving Pose): Extends the lumbar region and alleviates tension.
- Bhujangasana (Cobra Pose): Facilitates gradual spinal extension and fortification of the back.
- Supta Matsyendrasana (Supine spine Twist): Provides mild spine rotation and relaxation.
- Balasana (Child's Pose): Alleviates lumbar strain and encourages relaxation.
- Tadasana (Mountain Pose): Strengthens correct posture and alignment.
- Shavasana (Corpse Pose): Profound relaxation to end the session.

Pranayama (Respiratory Techniques):

- Anulom Vilom (Alternate Nostril Breathing) soothes the nervous system.
- Bhramari (Bee Breath): Alleviates stress and fosters relaxation**.**

Yoga Nidra was incorporated as an adjunctive intervention within the therapeutic protocol to promote deep relaxation and self-regulation among participants. Each session involved participants lying in a comfortable supine position with appropriate support to ensure physical ease. Under the guidance of the therapist, participants set a positive intention (Sankalpa), followed by a systematic body scan to enhance somatic awareness and facilitate the release of muscular tension. The session then progressed to breath awareness and, where appropriate, included guided visualization techniques to deepen the relaxation response. This approach is supported by existing literature demonstrating the efficacy of Yoga Nidra in reducing stress and anxiety, improving sleep quality, and alleviating chronic pain (Kumar, 2008; Moszeik et al., 2020).

Session Information:

Administered five days weekly, with sessions lasting 45 to 60 minutes over a duration of 12 weeks, overseen by professional yoga therapists. All postures are modified as necessary to ensure participant comfort and safety.

Varma Therapy Protocol

Varma Therapy will be administered by practitioners trained in Siddha methodology, adhering to established procedures (Mukherjee et al., 2022; Jayakumar et al., 2020):

Varma Point Timetable:

- Peral Varmam
- Nangana Poottu Poovadangal
- Viruthi Kalam Viruthi Adangal
- Komberi Kalam Sippu Munai Varmam Sippy Varmam
- Sessions entail targeted stimulation of specific areas, emphasising analgesia, muscle relaxation, and enhanced mobility. Treatments are administered biweekly for a duration of 12 weeks.

External use of Varma Thayalam (medicinal oils): Subsequent to varma stimulation, the lumbar region is massaged for 10–15 minutes using traditional medicated oils selected for their analgesic and anti-inflammatory attributes (Kumar et al., 2021).

- Vaadha Narayanan – Sesamum indicum oil
- Mudakkathan – Coconut Oil
- Nochi – Prunus armeniaca oil
- Pirandai - Flower oil
- Grambu – Azadirachta indica oil
- Pattai – Clarified Butter
- Vallarai – Brassica oil
- Pirammi – Linseed oil
- Thaluthazhai – Arachis oil
- Tippili – Carmine Oil

Consolidated Group

Participants in the combined group undergo both the aforementioned Yoga Sadhana and Varma Therapy regimens as delineated.

Performance Metrics

Assessments at baseline and after 12 weeks:

Physical Parameters:

- Intensity of pain (Visual Analogue Scale)
- Flexibility (Sit-and-Reach Assessment)
- Functional impairment (Oswestry Disability Index)

Data Acquisition and Examination

The data will be analysed via SPSS. Paired t-tests and ANOVA will be employed to evaluate intra- and inter-group differences, with significance established at $p < 0.05$.

Ethical Considerations

Ethical permission has been secured from the Institutional Human Ethics Committee of MAHER. Informed written consent will be acquired from all participants, ensuring strict confidentiality and protection of rights**.**

RESULTS

The study investigated the effectiveness of two interventions—Yoga combined with Varma (Group A) and Yoga only (Group B)—on pain intensity, disability, and flexibility in participants. At baseline, all groups were comparable in demographic and clinical characteristics. After 12 weeks of intervention, significant improvements were observed in all outcome measures within each group ($p < 0.001$). All three groups demonstrated significant improvements across all measured outcomes following the intervention. In terms of pain intensity (VAS), the Yoga Therapy group showed a mean reduction of -2.2 ($p<0.001$), the Varma Therapy group improved by -2.7 ($p<0.001$), and the combined Yoga with Varma Therapy group showed the greatest reduction at -3.9 ($p<0.001$). For the Oswestry Disability Index, the Yoga Therapy group improved by -14.6% ($p<0.001$), the Varma Therapy group by -21.7% ($p<0.001$), and the combined group by -22.0% ($p<0.001$). Regarding flexibility, the Yoga Therapy group demonstrated a mean change of +3.3 cm ($p<0.001$), the Varma Therapy group improved by +4.5 cm ($p<0.001$), and the combined group achieved the highest gain at +9.0 cm ($p<0.001$). Notably, the combined Yoga with Varma Therapy group consistently exhibited the most substantial improvements across all parameters.

Pain Intensity - VAS (0–10)					
Group	**Pre-test Mean (SD)**	**Post-test Mean (SD)**	**Mean Change (Improvement)**	**t-value (df=29)**	**p-value**
A (Yoga Therapy)	6.9 (1.1)	4.7 (1.1)	-2.2	11.2	<0.001*
B (Varma Therapy)	6.7 (1.3)	4.0 (1.2)	-2.7	12.6	<0.001*
C (Yoga with Varma Therapy)	6.8 (1.2)	2.9 (1.0)	-3.9	18.5	<0.001*
Oswestry Disability Index (%)					
Group	**Pre-test Mean (SD)**	**Post-test Mean (SD)**	**Mean Change (Improvement)**	**t-value (df=29)**	**p-value**
A (Yoga Therapy)	42.1 (8.5)	27.5 (7.2)	-14.60%	10.8	<0.001*
B (Varma Therapy)	41.8 (8.0)	20.1 (6.2)	-21.70%	14.6	<0.001*
C (Yoga with Varma Therapy)	42.0 (8.3)	20.1 (6.2)	-22.00%	14.6	<0.001*
Sit-and-Reach Flexibility (cm)					
Group	**Pre-test Mean (SD)**	**Post-test Mean (SD)**	**Mean Change (Improvement)**	**t-value (df=29)**	**p-value**
A (Yoga Therapy)	-5.4 (4.3)	-2.1 (4.0)	+3.3 cm	4.5	<0.001*
B (Varma Therapy)	-5.3 (4.2)	-0.8 (3.8)	+4.5 cm	5.8	<0.001*
C (Yoga with Varma Therapy)	-5.2 (4.1)	3.8 (3.9)	+9.0 cm	12.8	<0.001*

DISCUSSION

The current study revealed that Yoga Sadhana alone and its combination with Varma Therapy resulted in substantial enhancements in pain intensity, disability, and flexibility in middle-aged males suffering from Thandaga Vatham (low back pain). The group undergoing the combination intervention demonstrated enhanced outcomes across all assessed parameters in comparison to yoga alone. These findings align with other research demonstrating the effectiveness of yoga-based therapies for chronic low back pain. Systematic reviews and meta-analyses indicate that yoga can result in significant decreases in pain and disability, along with enhancements in physical function (Cramer et al., 2013; Wieland et al., 2017). The asanas employed in this study, including Marjariasana, Bhujangasana, and Balasana, are recognised for their ability to improve spinal flexibility, fortify back muscles, and facilitate relaxation, consistent with previously documented advantages (Sherman et al., 2011; Saper et al., 2017). The incorporation of Varma Therapy seems to have yielded further advantages, as seen by the enhanced progress in the combined group. Varma Therapy, originating from the Siddha tradition, entails the stimulation of certain areas to alleviate pain and re-establish equilibrium (Mukherjee et al., 2022). Recent research have emphasised Varma Therapy's efficacy in alleviating musculoskeletal pain and enhancing mobility, especially when combined with other mind-body practices (Jayakumar et al., 2020; Tiwari et al., 2024). The observed synergistic effect in this study may be ascribed to the complimentary mechanisms of yoga's neuromuscular activation and Varma's focused analgesic stimulation. Moreover, the notable enhancement in flexibility, as assessed by the sit-and-reach test, corresponds with current literature highlighting yoga's beneficial effects on musculoskeletal flexibility (Wieland et al., 2017). The decrease in disability scores is significant, as functional restrictions are a primary concern for patients with chronic low back pain and are closely associated with quality of life (Hurwitz et al., 2016). The study's primary strength lies in its meticulous design, featuring randomisation and standardised interventions executed by qualified professionals. The utilisation of validated outcome

measures (VAS, Oswestry Disability Index, and sit-and-reach flexibility) significantly improves the dependability of the results. Nonetheless, many limitations must be recognised, including the lack of a standard care or placebo control group and the confinement of the sample to middle-aged males from a singular geographic region, which restricts generalisability. This study demonstrates that the integration of Yoga Sadhana and Varma Therapy is superior to yoga alone in alleviating pain, enhancing flexibility, and reducing impairment in males with Thandaga Vatham. These findings endorse the incorporation of conventional therapy approaches for the holistic treatment of low back pain.

CONCLUSION

This randomised, parallel-group, multi-arm clinical experiment offers substantial evidence endorsing the efficacy of both Yoga Sadhana and Varma Therapy, delivered separately and in conjunction, for the treatment of Thandaga Vatham (lumbar spondylosis/low back pain) in middle-aged males. The integration of Yoga Sadhana and Varma Therapy yielded the most significant enhancements in pain intensity, disability metrics, and spinal flexibility, underscoring the synergistic efficacy of these traditional, non-invasive modalities. These results align with the expanding evidence supporting integrative strategies in the management of musculoskeletal problems, especially chronic low back pain. The findings indicate that integrating Yoga Sadhana and Varma Therapy into clinical practice can offer a safe, accessible, and successful approach to reducing pain, promoting functional mobility, and improving the overall quality of life for patients suffering from Thandaga Vatham. Nonetheless, constraints such as the emphasis on a particular demographic and the lack of long-term follow-up require additional research in varied populations and over lengthy periods to validate the persistence and applicability of these results. This study underscores the therapeutic potential of integrating ancient yogic practices with Siddha-based Varma Therapy as a supplementary approach in modern pain management protocols.

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