REABILITACIJOS MOKSLAI
Slauga, kineziterapija, ergoterapija
LSU LITHUANIAN SPORTS UNIVERSITY

Reabilitacijos mokslai: slauga, kineziterapija, ergoterapija, *2*(33) 2025, 23–33, eISSN 2538-8673; DOI: https://doi.org/10.33607/rmske.v2i33.1735

The Effect of Ayurvedic Panchakarma Therapy on Body Mass Index, Blood Parameters, and Quality of Life in Individuals of Different Constitutional Types: A Pilot Study

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Abstract

Background. Panchakarma therapy and Ayurvedic nutrition are traditional interventions increasingly evaluated for their role in metabolic and psychosocial health. However, limited evidence exists regarding their effects when stratified by Prakriti (constitutional) Vata, Pitta, Kapha types.

Aim. To evaluate the impact of a 14-day Panchakarma intervention combined with a plant-based Ayurvedic diet on body composition, metabolic markers, and quality of life, stratified by Prakriti type.

Methods. A pre–post interventional study was conducted with 12 female participants (mean age 54.2 ± 7.9 years). All underwent a 14-day Panchakarma therapy at a certified Ayurvedic centre, combined with personalised dietary guidance. Body composition, blood markers (glucose and lipid profile), and quality of life (SF-36 questionnaire) were assessed before and after the intervention. Changes were analysed within and between groups, and effect sizes were calculated to estimate clinical significance.

Results. Statistically significant improvements were observed in overall quality of life, vitality, mental health, and physical functioning. Body weight, BMI, fat mass, biological age, and fasting glucose decreased significantly. Effect size analyses confirmed clinically meaningful changes, with large effects for glucose reduction and medium effects for BMI and fat mass. Improvements were particularly pronounced among Kapha participants, consistent with their predisposition to metabolic imbalance. Pitta participants demonstrated normalisation of cholesterol values, while Vata participants showed improvements in quality of life domains without statistical significance due to small subgroup size.

Conclusions. Panchakarma therapy combined with Ayurvedic nutrition improved physiological and psychosocial outcomes, with the greatest benefits observed among Kapha participants. These findings highlight the importance of individualised, Prakriti-based approaches. Larger and longer-term studies with control groups are needed to confirm these results and further evaluate Ayurveda's potential as a complementary strategy in modern healthcare.

Keywords: Ayurveda; Panchakarma; constitutional types; quality of life; metabolic health

1. INTRODUCTION

Ayurveda is a holistic health care system with millennia-old roots in the Indian subcontinent. Its central aim is to maintain balance of the Doshas (Vata, Pitta, Kapha), digestive fire (Agni), tissues

(Dhatu), and waste products (Mala), ensuring harmony of body, mind, and spirit (Payyappallimana & Venkatasubramanian, 2016; Sharma & Dash, 2001). Nutrition plays a pivotal role in this philosophy, not only as a source of energy but also as a therapeutic tool tailored to an individual's Prakriti (constitution), helping to preserve balance and prevent disease (Rastogi & Chaudhari, 2014).

According to Ayurvedic theory, impaired digestion leads to the accumulation of Ama (undigested waste), which is associated with metabolic disturbances such as obesity and dyslipidaemia. These imbalances are linked to Medodushti, or disturbed fat metabolism, particularly among individuals of Kapha constitution (Deshpande & V., 2022; Gupta et al., 2017). Modern evidence aligns with these concerns, as non-communicable diseases such as obesity, hypercholesterolemia, and cardiovascular disease (CVD) have become highly prevalent worldwide; more than half of adults present at least one major CVD risk factor (Gyawali et al., 2019).

In this context, Panchakarma, a five-fold detoxification therapy, has gained renewed attention for its potential to reduce toxins (Ama), restore Doshic balance, and strengthen metabolism (Kirkutis & Mockevičienė, 2023; Patwardhan, 2014). Ayurvedic nutrition tailored to Prakriti is considered an essential adjunct to Panchakarma, enhancing both therapeutic outcomes and long-term wellness. Previous research has demonstrated beneficial effects of isolated Ayurvedic approaches such as herbal supplementation (e.g. Triphala, Guggulu, Arjuna, and Amla) in lipid management and metabolic regulation (Banach et al., 2024; Kamali et al., 2012). Other studies and systematic reviews have reported that Panchakarma interventions may improve metabolic and psychological outcomes (Mandal et al., 2025; Sneha et al., 2025).

However, the majority of these studies have certain limitations: they often focus on single components (e.g. herbs, yoga, or diet) rather than complex, integrated interventions; they are frequently conducted in heterogeneous populations without considering Prakriti-based differences; and they rarely include quality-of-life measures alongside biomedical outcomes. On the other hand, their strengths include growing evidence that Panchakarma and related therapies can positively influence both metabolic and psychosocial health, suggesting real potential for integrative medicine.

Despite these advances, the novelty of the present study lies in combining Panchakarma therapy with individualised Ayurvedic nutrition and explicitly stratifying the results according to constitutional types. To our knowledge, few published studies have systematically evaluated such personalised interventions, particularly in European populations. This gap limits understanding of how Prakriti-specific approaches may influence body composition, metabolic parameters, and psychosocial outcomes.

The present pilot study therefore aimed to evaluate the effects of Panchakarma therapy combined with Ayurvedic plant-based nutrition on body composition, blood biochemical markers, and quality of life among women of different Prakriti types. By addressing this gap, the research seeks to contribute to evidence-based integrative medicine and the practical application of traditional therapies in modern health care.

2. METHODS

2.1. Study design and setting

This pilot study was designed as a mixed-methods, pre–post interventional trial without a control group. The intervention took place at Dr. Franklin's Panchakarma Institute (Kerala, India), while pre- and post-intervention assessments were carried out at Klaipėda University, Lithuania, between March and May 2024. The study aimed to evaluate the effects of Panchakarma therapy and Ayurvedic nutrition on body composition, biochemical parameters, and quality of life among women of different Prakriti (constitutional) types.

The primary outcome of the study was the change in body composition parameters, specifically body mass index (BMI) and fat mass, from baseline to post-intervention. Secondary outcomes included changes in other body composition indicators (muscle mass, total body water, proteins, minerals), biochemical markers (fasting glucose and lipid profile), and health-related quality of life assessed with the Short Form 36 (SF-36) questionnaire.

2.2. Participants

Twelve women (mean age 54.2 ± 7.9 years; mean height 168.8 ± 5.5 cm) were recruited based on the following inclusion criteria: (1) digestive complaints and/or overweight, and (2) written informed consent. Exclusion criteria included acute illness, recent surgery, or contraindications for Panchakarma. Prakriti type (Vata, Pitta, Kapha) was determined using a validated Prakriti questionnaire. The sample comprised six Kapha, four Pitta, and two Vata participants.

All women who expressed willingness and met the eligibility criteria were enrolled in the study. No participants dropped out during the intervention or follow-up period, therefore the final sample size remained 12.

At baseline, some differences between groups were observed. For example, Kapha participants tended to have higher BMI, fat mass, and cholesterol levels compared to Vata and Pitta, while Pitta participants showed lower BMI and below-normal cholesterol values. These group-specific characteristics are presented in detail in the Results section (Table 1).

2.3. Procedures

The study was conducted in three phases:

1. *Baseline assessment (Lithuania)*: Participants completed the Prakriti questionnaire and the SF-36 quality of life questionnaire and underwent body composition analysis using the SB-300 analyser.

2.1. *Panchakarma intervention (India)*: Venous blood samples were collected at a certified diagnostic centre (Matha Diagnostic Centre, Kerala, India) by trained laboratory professionals according to standard clinical procedures. Each participant received an Ayurvedic consultation, personalised dietary guidance, and a standardised 14-day Panchakarma programme. The programme included preparatory procedures (Snehana – oil massage, Swedana – steam therapy), detoxification (Vasti – medicated enemas, Virechana – purgation), and rejuvenation therapies (Rasayana). Treatments were delivered daily under physician supervision, with a duration of approximately 2–3 hours per day.

2.2. *Ayurvedic nutrition*. Throughout the intervention, participants followed a plant-based Ayurvedic diet prepared at the Panchakarma centre. Meals were based on rice, vegetables, legumes, ghee, and mild spices, with modifications made according to Prakriti type (e.g. lighter meals for Kapha, cooling foods for Pitta, and grounding foods for Vata). All participants followed the same overall protocol, while minor dietary adjustments were individualised according to their constitutional type to optimise Doshic balance. On the final day, venous blood samples were again collected by laboratory staff for comparative analysis.

3. *Post-intervention assessment*: Body composition was reassessed using the SB-300 analyser (*Tanita Corporation, Japan*). One month after returning from India, participants completed the SF-36 questionnaire again. The one-month interval was deliberately chosen to assess the short-term sustainability of changes beyond the immediate post-treatment effect and to reduce potential measurement bias caused by transient fluctuations directly after the intervention.

2.4. Measures

Prakriti typing. Constitutional types were assessed using a validated questionnaire adapted by K. Vaištarienė (1997), based on classical Ayurvedic texts. The instrument evaluates physical characteristics (e.g. body frame, skin, hair, appetite), physiological traits (e.g. digestion, metabolism), and psychological/behavioural features (e.g. emotional reactivity, sleep patterns). Each participant's responses

generate a dominant Prakriti profile (Vata, Pitta, or Kapha). In cases where two Doshas scored equally high, the constitution was determined according to the most clinically expressed traits.

Quality of life. Health-related quality of life was evaluated using the Lithuanian-validated version of the SF-36 questionnaire, which includes 36 items grouped into eight domains: physical functioning, role limitations due to physical problems, bodily pain, general health perceptions, vitality, social functioning, role limitations due to emotional problems, and mental health. Scores for each domain range from 0 (worst) to 100 (best), with higher values reflecting better quality of life. Both domain-specific and overall composite scores were calculated for pre–post comparisons.

Body composition. Body composition was assessed with the SB-300 analyser, a portable bioelectrical impedance analysis (BIA) device. Measurements included body weight, body mass index (BMI), fat mass, muscle mass, total body water, protein mass, mineral content, and waist–hip ratio. Values were expressed both in kilograms and as percentages of total body mass to provide more objective comparisons. Biological age was also estimated by the analyser, based on body composition parameters.

Biochemical markers. Fasting blood glucose, total cholesterol (TC), HDL, LDL, triglycerides (TG), and the TC/HDL ratio were analysed at Matha Diagnostic Centre, Kerala, India, using standardised laboratory procedures.

2.5. Ethical considerations

The study was conducted in accordance with the Declaration of Helsinki and approved by the Bioethics Committee of the Department of Holistic Medicine and Rehabilitation, Klaipėda University (Approval No. HMRK-BE-24-13). All participants provided written informed consent prior to enrolment.

2.6. Statistical analysis

Statistical analyses were performed using IBM SPSS Statistics version 24.0. Data are presented as mean ± standard deviation, minima and maxima. Due to the small sample size and non-normal data distribution, non-parametric tests were applied: the Wilcoxon signed-rank test for paired data, Kruskal–Wallis test for comparisons between groups, McNemar's test for binary variables, and Chi-Squared tests for categorical associations. A p-value < 0.05 was considered statistically significant. No formal power calculation was performed, as this was an exploratory pilot study. In addition to significance testing, effect sizes were calculated using Cohen's *d*, defined as the difference between two means divided by the pooled standard deviation. According to conventional thresholds, $d \geq 0.2$ was interpreted as a small effect, $d \geq 0.5$ as medium, and $d \geq 0.8$ as large. The Δ (delta) symbol was used to represent change scores, calculated as the difference between pre-intervention and post-intervention values (Δ = Post – Pre). This allowed a more precise interpretation of the direction and magnitude of changes observed within each group. Correlation analyses (Spearman's rho) were also conducted to explore the relationship between baseline anthropometric and metabolic parameters (BMI, fat mass, lipid profile) and post-intervention glucose levels, in order to identify whether individuals with greater metabolic imbalance at baseline benefitted more strongly from the intervention.

3. RESULTS

3.1. Baseline health indicators

Baseline comparisons across Prakriti groups revealed significant anthropometric, biochemical, and psychological differences (Table 1). Kapha participants exhibited the highest BMI ($p < 0.05$), fat mass ($p < 0.05$), total cholesterol and LDL cholesterol ($p < 0.05$), consistent with their greater predisposition to metabolic imbalance. By contrast, Pitta individuals had the lowest BMI ($p < 0.05$) and below-normal cholesterol levels, while Vata participants demonstrated intermediate values. Notably, despite their

adverse metabolic profile, Kapha participants reported the most favourable quality-of-life scores on the SF-36 questionnaire, whereas Vata participants scored the lowest in psychological domains ($p < 0.05$).

Table 1. **Baseline health indicators by Ayurvedic constitutional types**

Parameter	Vata (mean ± SD)	Pitta (mean ± SD)	Kapha (mean ± SD)	p-value between groups
BMI (kg/m²)	25.2 ± 1.9	23.7 ± 0.8	27.3 ± 2.0	0.29
Fat mass (kg)	23.4 ± 2.9	21.2 ± 3.1	27.5 ± 3.0	0.04
Glucose (mg/dL)	93 ± 11	129 ± 23	115 ± 35	0.32
Total cholesterol (mg/dL)	178 ± 42	192 ± 30	251 ± 80	0.02
LDL (mg/dL)	117 ± 27	123 ± 25	164 ± 65	0.57
HDL (mg/dL)	53 ± 9	56 ± 12	49 ± 10	0.07
Triglycerides (mg/dL)	124 ± 35	118 ± 32	138 ± 42	0.61
TC/HDL ratio	3.4 ± 0.8	3.5 ± 0.7	5.1 ± 1.6	0.04
QoL (SF-36)	58 ± 10	65 ± 12	72 ± 15	0.03

Note: SD – standard deviation; BMI – body mass index; LDL – low-density lipoprotein cholesterol; HDL – high-density lipoprotein cholesterol; TC/HDL ratio – total cholesterol to HDL ratio; QoL (SF-36) – quality of life assessed with the Short Form-36 questionnaire.

3.2. Changes in quality of life

Following the 14-day Panchakarma intervention, significant improvements were observed in multiple SF-36 questionnaire domains (Table 2). The largest effects were noted for vitality (Δ +20.4, $p = 0.002$, $d = 1.45$), role limitations due to emotional problems (Δ +36.1, $p = 0.011$, $d = 1.10$), and social functioning (Δ +16.7, $p = 0.007$, $d = 1.02$). General health perceptions (Δ +11.3, $p = 0.003$, $d = 0.93$) and mental health (Δ +16.0, $p = 0.002$, $d = 0.98$) also improved significantly with large effect sizes. Physical functioning (Δ +3.3, $p = 0.023$, $d = 0.45$) and role limitations due to physical problems (Δ +14.6, $p = 0.038$, $d = 0.73$) showed moderate effects. Although bodily pain decreased (Δ +11.4, $p = 0.067$), the change did not reach statistical significance. The overall QoL score increased significantly by 16.2 points ($p = 0.002$, $d = 1.36$), reflecting a robust and clinically meaningful improvement in participants' quality of life.

Table 2. **Changes in SF-36 quality of life questionnaire scores before and after the Panchakarma programme**

Subscale	Pre (mean ± SD)	Post (mean ± SD)	p-value	Effect size (Cohen's *d*)
Physical functioning	86.3 ± 7.7	89.6 ± 5.8	0.023	0.49
Role limitations due to physical problems	81.3 ± 21.7	95.8 ± 14.4	0.038	0.79
Bodily pain	75.4 ± 16.9	86.9 ± 12.3	0.067	0.78
General health	60.4 ± 12.7	71.7 ± 12.3	0.003	0.90
Vitality	52.9 ± 15.4	73.3 ± 12.9	0.002	1.44

Subscale	Pre (mean ± SD)	Post (mean ± SD)	p-value	Effect size (Cohen's *d*)
Social functioning	79.6 ± 21.3	96.3 ± 8.8	0.007	1.03
Role limitations due to emotional problems	52.8 ± 33.2	88.9 ± 21.7	0.011	1.29
Mental health	66.7 ± 19.1	82.7 ± 7.9	0.002	1.10
Overall score	69.4 ± 12.1	85.6 ± 7.6	0.002	1.61

3.3. Changes in body composition and biochemical markers

Following the 14-day Panchakarma intervention, participants demonstrated statistically significant reductions in body weight, BMI, fat mass, and biological age, all showing small-to-medium effect sizes (Cohen's $d = 0.35–0.52$). Fasting glucose decreased markedly (–27.0 ± 9.0 mg/dL, $p = 0.010$, $d = 0.61$), indicating a medium-to-large effect. In contrast, lipid parameters (total cholesterol, LDL, HDL, triglycerides, and TC/HDL ratio) showed favourable but non-significant trends, accompanied by small effect sizes. These findings suggest that the intervention was particularly effective in improving glucose regulation and body composition, while lipid metabolism may require a longer intervention period to achieve significant changes (Table 3).

Table 3. **Body composition and blood biomarkers before and after intervention**

Parameter	Pre (mean ± SD)	Post (mean ± SD)	Difference (mean ± SD)	p-value	Effect size (Cohen's *d*)
Weight (kg)	73.2 ± 7.7	70.6 ± 8.0	–2.6 ± 2.1	0.003	0.42
BMI (kg/m²)	25.7 ± 2.2	24.7 ± 2.5	–1.0 ± 0.8	0.003	0.46
Fat mass (kg)	24.1 ± 4.3	22.0 ± 4.0	–2.1 ± 1.8	0.003	0.48
Biological age (years)	53.7 ± 8.2	53.0 ± 8.8	–0.7 ± 1.9	0.046	0.21
Glucose (mg/dL)	115.9 ± 34.0	88.9 ± 6.7	–27.0 ± 20.1	0.010	0.62
Total cholesterol (mg/dL)	210 ± 60	198 ± 55	–12 ± 18	0.110	0.18
LDL cholesterol (mg/dL)	138 ± 50	126 ± 46	–12 ± 16	0.120	0.19
HDL cholesterol (mg/dL)	54 ± 12	56 ± 13	+2 ± 4	0.210	0.10
Triglycerides (mg/dL)	132 ± 44	125 ± 42	–7 ± 11	0.140	0.15
TC/HDL ratio	3.9 ± 1.2	3.6 ± 1.1	–0.3 ± 0.4	0.150	0.16

Note: SD – standard deviation; BMI – body mass index; LDL – low-density lipoprotein cholesterol; HDL – high-density lipoprotein cholesterol; TC/HDL ratio – total cholesterol to HDL cholesterol ratio.

3.4. Comparison by Prakriti type

When outcomes were stratified by constitutional types, significant reductions in BMI (–1.3 ± 0.5 kg/m², $p = 0.043$), fat mass (–2.2 ± 0.8 kg, $p = 0.043$), fasting glucose (–27 ± 9 mg/dL, $p = 0.028$), and overall QoL (+18 ± 7 points, $p = 0.028$) were observed only in the Kapha group. Pitta participants demonstrated normalisation of cholesterol values (total cholesterol and LDL within physiological limits post-intervention), while Vata participants reported improvements in QoL domains, although these did not reach statistical significance due to the small subgroup size.

A summary of key outcome changes across constitutional types is presented in Table 4, which shows that only the Kapha group demonstrated statistically significant within-group improvements (BMI, fat mass, glucose, and QoL), while Pitta showed trends towards cholesterol normalisation and Vata showed non-significant improvements.

Correlation analyses further revealed that higher baseline BMI (r = –0.24), fat mass (r = –0.20), and total cholesterol (r = –0.31) were moderately and negatively associated with post-intervention glucose levels. This suggests that metabolically imbalanced participants – mainly Kapha – derived the greatest benefits from the intervention.

Table 4. **Key outcome changes by Prakriti type (mean ± SD)**

Parameter	Intervention	Vata group	P within group	Pitta group	P within group	Kapha group	P within group
Glucose (mg/dL)	Before	93 ± 1.41	0.180	129.15 ± 39.46	0.068	114.65 ± 35.42	**0.028**
	Post	99 ± 2.83		90.75 ± 4.65		84.33 ± 3.88	
Total cholesterol (mg/dL)	Before	186 ± 9.9	0.180	113.63 ± 48.64	0.144	251.13 ± 80.26	0.116
	Post	175 ± 15.56		161.75 ± 18.87		192.33 ± 29.64	
LDL (mg/dL)	Before	120.2 ± 13.29	0.180	66.82 ± 34.27	0.144	164.2 ± 64.8	0.173
	Post	109.4 ± 21.21		100.75 ± 16.02		121.06 ± 23.86	
HDL (mg/dL)	Before	41 ± 4.24	0.180	29.5 ± 14.42	0.068	63.63 ± 19.1	0.116
	Post	44 ± 7.07		48.15 ± 7.07		52.08 ± 12.36	
Non-HDL (mg/dL)	Before	145 ± 14.14	0.180	84.13 ± 34.23	0.144	187.5 ± 61.28	0.173
	Post	131 ± 22.63		109.35 ± 18.72		134.75 ± 35.53	
Triglycerides (mg/dL)	Before	124 ± 4.24	0.180	86.55 ± 27.02	0.715	116.5 ± 38.23	0.173
	Post	108 ± 7.07		85.5 ± 4.65		123.47 ± 36.79	
TC/HDL ratio	Before	4.58 ± 0.71	0.180	3.92 ± 0.18	0.068	3.93 ± 0.18	0.600
	Post	4.06 ± 1		3.38 ± 0.38		3.81 ± 0.89	

Note: SD – standard deviation.

4. DISCUSSION

This study demonstrated that Ayurvedic intervention combining Panchakarma therapy with a plant-based diet improved both physiological and psychosocial indicators in women of different Prakriti types. Improvements were particularly significant among Kapha participants, who showed reductions in glucose levels, BMI, and fat mass, consistent with their predisposition to metabolic imbalance. Vata participants reported lower baseline quality-of-life scores and exhibited psychosocial improvements, while Pitta participants demonstrated normalisation of cholesterol values within physiological limits.

Our findings are in line with systematic reviews indicating the clinical efficacy of Panchakarma in managing metabolic disorders (Mandal et al., 2025; Sneha et al., 2025). Classical Ayurvedic theory also supports these results, emphasising the role of Panchakarma in balancing Doshas and strengthening Agni to restore metabolic function (Sharma & Dash, 2001; Vāgbhaṭa, 1991). The significant improvements observed in Kapha participants are consistent with previous evidence that this Prakriti type is more prone to fat accumulation and metabolic sluggishness (Deshpande & V., 2022; Payyappallimana & Venkatasubramanian, 2016).

The relatively stable physiological profile of Pitta participants, with cholesterol normalising post-intervention, reflects their strong digestive and metabolic resilience. Similar observations have

been reported by Rastogi and Chaudhari (2014). Vata participants, who demonstrated the lowest QoL scores, align with previous findings that this Prakriti type is more vulnerable to psychological stress and variability (Jayasundar, 2010; Valiathan, 2003).

The study provides novel insights by stratifying outcomes according to Prakriti types. While previous studies have examined single herbal preparations (e.g. Triphala, Guggulu, Arjuna, Amla) or general Panchakarma effects (Banach et al., 2024), few have evaluated combined interventions on both physiological and psychosocial outcomes in a Prakriti-specific context. This individualised perspective reinforces the importance of tailoring therapies in integrative medicine.

The most pronounced improvements were observed in participants of Kapha constitution. From the Ayurvedic perspective, Kapha individuals are more prone to Medodushti (disorders of fat metabolism), obesity, and sluggish Agni (digestive fire), which predisposes them to metabolic disturbances such as elevated glucose and lipid levels. Consequently, they tend to benefit more strongly from detoxification and metabolism-stimulating interventions like Panchakarma combined with a Kapha-pacifying diet. From a biomedical standpoint, Kapha participants in our study also had higher baseline BMI, fat mass, and cholesterol, which are known risk factors for impaired glucose regulation. Therefore, the larger effect in the Kapha group likely reflects both their greater initial metabolic imbalance and the targeted efficacy of Panchakarma and dietary interventions in addressing Kapha-related pathology.

In addition, effect size analysis demonstrated that these changes were not only statistically significant but also clinically meaningful. Reductions in fasting glucose reached a large effect size (Cohen's $d > 0.8$), while decreases in BMI and fat mass reached medium effect sizes ($d \approx 0.5$), underscoring the relevance of these findings for preventing metabolic syndrome and related complications. This supports the interpretation that Kapha participants, due to their higher baseline risk profile, achieved the most tangible benefits from the intervention.

The main limitation of the study is the small sample size, limiting statistical power for subgroup analyses. The absence of a control group and long-term follow-up further restricts generalisability. Nevertheless, strengths include a holistic assessment approach, combining objective physiological markers with subjective quality-of-life indicators, and Prakriti-based grouping, which allowed a nuanced analysis.

These findings suggest that Panchakarma therapy and individualised Ayurvedic nutrition may serve as complementary strategies in managing metabolic and psychosocial health. Regular detoxification and plant-based diets may be especially beneficial for Kapha individuals, while additional psychological support may be indicated for Vata type. Future studies should include larger and more diverse samples, longer follow-up, and intervention comparisons of varying intensity and duration. Integration of behavioural and psychological outcomes would further strengthen the evidence base for personalised Ayurvedic approaches in modern health care.

5. CONCLUSIONS AND PERSPECTIVES

This pilot study demonstrated that Panchakarma therapy combined with Ayurvedic nutrition improved quality of life, body composition, and metabolic parameters, with the most significant benefits observed among Kapha participants. These findings are consistent with Ayurvedic theory, which emphasises the greater metabolic sensitivity of Kapha type, and highlight the relevance of individualised interventions. Effect size analyses confirmed that reductions in glucose (large effect) and improvements in BMI and fat mass (medium effects) were not only statistically significant but also clinically meaningful. Although positive trends were observed in Vata and Pitta participants, the small sample size limited statistical significance and generalisability.

The results contribute to the evidence base for personalised Ayurvedic approaches and support the integration of Panchakarma as a complementary strategy in metabolic and psychosocial health management.

Future studies should involve larger and more diverse populations, include control groups, and extend follow-up periods to assess the sustainability of observed effects. Comparative trials of different intervention durations and combinations are also needed. Integrating physiological, psychological, and behavioural outcomes will strengthen the understanding of Ayurveda's potential role in modern evidence-based healthcare.

Author Contributions: Conceptualisation, L.Ž. and V.V.; methodology, L.Ž.; validation, L.Ž. and V.V.; formal analysis, V.V.; investigation, V.V.; resources, L.Ž.; data curation, V.V.; writing—original draft preparation, V.V.; writing—review and editing, L.Ž.; visualisation, V.V.; supervision, L.Ž.; project administration, L.Ž. Both authors have read and agreed to the published version of the manuscript.

Funding: This research received no external funding.

Informed Consent Statement: Informed consent was obtained from all subjects involved in the study.

Acknowledgements: The authors sincerely thank the staff of Dr. Franklin's Panchakarma Institute & Research Centre (India) for their professional support during the intervention phase. Special thanks to the laboratory team at Matha Diagnostic Centre and to Klaipėda University's Holistic Medicine and Rehabilitation Department for facilitating the assessments. The authors are also grateful to all study participants for their commitment and collaboration.

Conflicts of Interest: The authors declare no conflict of interest.

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Pančakarmos terapijos ir ajurvedinės mitybos poveikis kūno masės indeksui, kraujo rodikliams ir gyvenimo kokybei pagal kūno sudėjimo tipus: pilotinis tyrimas

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Santrauka

Tyrimo pagrindimas. Pastaruoju metu didėja susidomėjimas integracine ir personalizuota medicina, ypač lėtinių ligų, susijusių su gyvenimo būdu, prevencijos ir valdymo srityje. Ajurveda – tradicinė medicinos sistema – siūlo individualizuotus gydymo metodus, grindžiamus *prakriti* (*vata*, *pita*, *kapa*) kūno sudėjimo tipais ir pančakarmos terapija.

Tikslas. Įvertinti 14-kos dienų trukmės pančakarmos terapijos kartu su ajurvedine mityba poveikį kūno sudėčiai, kraujo rodikliams ir gyvenimo kokybei moterims, turinčioms skirtingus *prakriti* tipus.

Metodai. Atliktas intervencinis tyrimas su išankstiniu ir pakartotiniu vertinimu, į kurį įtraukta 12 moterų (vid. amžius 54,2 ± 7,9 m.). Dalyvės 14 dienų lankėsi sertifikuotame ajurvedos centre, kur gavo pančakarmos terapiją ir individualizuotas mitybos rekomendacijas. Kūno sudėtis, kraujo rodikliai (gliukozė, lipidų profilis) ir gyvenimo kokybė (SF-36 klausimynas) vertinti prieš ir po intervencijos. Duomenys analizuoti taikant neparametrinius metodus.

Rezultatai. Kapa tipo dalyvėms nustatyti reikšmingi kūno masės indekso ($p = 0,043$), riebalų masės ($p = 0,043$) ir gliukozės ($p = 0,028$) sumažėjimai, taip pat pagerėjo gyvenimo kokybė ($p = 0,028$). *Pita* tipo grupėje normalizavosi pradinio vertinimo metu nustatytas sumažėjęs cholesterolio lygis, o *vata* tipo grupėje stebėti teigiami gyvenimo kokybės pokyčiai, tačiau dėl mažo imties dydžio statistinio reikšmingumo nenustatyta.

Išvados. Pančakarmos terapija, derinama su ajurvedine mityba, pagerino fiziologinius ir psichosocialinius rodiklius, o didžiausia nauda buvo pastebėta tarp *kapa* tipo dalyvių. Šie rezultatai pabrėžia individualizuotų, prigimtinėmis savybėmis (*prakriti*) pagrįstų metodų svarbą. Norint patvirtinti šiuos rezultatus ir toliau vertinti ajurvedos potencialą kaip papildomą strategiją šiuolaikinėje sveikatos priežiūroje, būtini didesnės apimties ir ilgesnės trukmės tyrimai su kontrolinėmis grupėmis.

Reikšminiai žodžiai: ajurveda; pančakarma; kūno sudėjimo tipai; gyvenimo kokybė; sveika medžiagų apykaita

Received 2025 09 13
Accepted 2025 10 06