

Therapeutic Application of Hand Mudras versus Improvement through the Use of Medicines Alone: A Comparative Study of Udaipur City

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Abstract: The objective of this study is to compare the therapeutic effects of hand mudras with the benefits obtained through medicinal treatment alone. A total of 500 participants were included in the study, of which 250 participants relied solely on medicines, while the remaining 250 participants practiced hand mudra yoga for 30 days along with their prescribed medication. The study observed that participants who practiced hand mudras experienced greater improvements than those using medicines alone across several dimensions, including mental calmness, energy levels, quality of sleep, immunity, and emotional stability. Data were analysed using t-tests and descriptive statistics, and the findings empirically validate the positive therapeutic impact of hand mudras. This study highlights the scientific applicability of mudras within the framework of India's traditional medical systems.

Keywords: Mudra therapy, medicinal treatment, yoga, hand mudras, practicality, therapeutic effects, health improvement.

I. INTRODUCTION

Hand mudras have occupied a significant place in India's traditional medical heritage. The science of hand mudras is a system in which various finger combinations and postures help balance the body's energy system and provide health benefits. This method lies at the intersection of yoga, Ayurveda, and tantric sciences and is believed to enable healing at physical, mental, and spiritual levels.

In the present era, where modern medical science has become heavily dependent on drugs and medical devices, hand mudras are emerging as a simple, accessible, and side-effect-free alternative. This research paper presents a comparative analysis between hand mudras and medicinal treatment alone to understand which method is more effective or how their combination can accelerate and stabilize recovery.

In today's world, increasing disease complexity, irregular lifestyles, and mental stress have significantly affected human health. Several studies indicate that medicinal treatment alone often suppresses symptoms without addressing root causes. Complementary therapies such as yoga, pranayama, meditation, and hand mudras help address both symptoms and underlying causes. Mudra yoga works solely through hand positions, restoring balance among the five elements (air, fire, water, earth, and ether), whose imbalance is believed to be the root cause of many diseases.

Hand mudras can be practiced by individuals of any age, condition, or time, making them universally accessible. Many patients experience mental fatigue due to prolonged dependence on medicines, whereas adopting simple yogic practices like mudras often brings physical relief along with mental peace and renewed energy. Rather than treating these benefits as anecdotal, the core aim of this study is to scientifically examine and compare these effects.

In a country like India—where ancient systems such as Ayurveda and Yoga coexist with modern allopathic medicine—integrative approaches have been encouraged, yet the scientific evaluation of mudra therapy remains limited. Therefore, this study divided 500 participants into two groups: one receiving only medicinal treatment and the other combining medicines with 30 days of hand mudra practice. The objective was to establish mudras not merely as a traditional practice but as a viable and effective modern therapeutic method.

Health improvement was evaluated across multiple dimensions such as stress reduction, sleep quality, energy levels, concentration, emotional balance, immunity, dependence on medicines, spiritual awareness, and overall lifestyle change. These indicators reflect not just physical recovery but holistic well-being, highlighting mudra science as a comprehensive therapeutic system.

Another important aspect is affordability. Modern medical treatments often involve high costs, side effects, and limited accessibility—particularly for rural and economically weaker populations. In contrast, hand mudras require no equipment or expenditure and can be practiced anywhere, making them socially equitable and economically feasible. This study also assessed acceptability and practicality to highlight the socio-economic relevance of mudra therapy.

An additional objective of this research is to demonstrate that integrating hand mudras as a complementary therapy can reduce dependence on medicines, accelerate recovery, and promote mental and spiritual balance. True health extends beyond physical treatment to include mental, social, and spiritual dimensions—areas where mudra science offers integrative balance.

This research is grounded in the belief that allopathic treatment alone can be limited, and its integration with traditional Indian practices can enhance effectiveness. Thus, the study represents a comparative experimental investigation at the confluence of traditional knowledge and modern medical science, supported by empirical data and statistical analysis rather than theory alone.

From an innovation perspective, the study compares two experimental groups—one relying only on medicines and the other incorporating hand mudra practice—allowing precise evaluation of areas where medicinal dependence decreased, mental health improved, and sustainable lifestyle changes occurred.

Ultimately, this study not only validates the utility of hand mudra science but also demonstrates that integrating ancient practices with modern medicine can offer a holistic and long-term solution to human health challenges. In an era marked by stress and health crises, this research provides a simple, accessible, and scientifically validated pathway to well-being.

II. REVIEW OF LITERATURE

Sharma (2017) demonstrated that regular practice of hand mudras such as Gyan Mudra, Prana Mudra, and Shunya Mudra strengthens mental balance. Participants practicing mudra yoga for 30 minutes daily experienced significant reductions in stress, irritability, and lack of concentration. Verma, Sharma, and Saini (2018) conducted an experimental study on 200 hypertensive patients and found that those practicing mudras alongside medication showed more stable blood pressure levels and reduced physical fatigue, suggesting mudras as effective complementary therapy. Kumar (2019) studied the effects of Vayu and Agni Mudras on digestive disorders and concluded that these mudras alleviate gas, indigestion, and acidity, improving internal organ functioning.

Singh and Rao (2020) found significant improvements in sleep quality and duration among insomnia patients practicing mudras, especially when combined with yoga nidra. Joshi (2021) concluded from classical yogic texts that hand mudras function scientifically across spiritual, mental, and physical health domains by balancing the five elements. Rani and Patel (2019) reported that students practicing Prana and Vayu Mudra before examinations experienced increased confidence and mental calmness.

Mishra (2018) observed improved blood sugar levels in diabetic patients practicing Apana and Linga Mudra, highlighting mudras' role in chronic disease management. Dasgupta and Nair (2020) found that combining medicines with mudra therapy accelerated recovery and reduced drug dosage. Shukla (2022) identified Surya and Hriday Mudra as effective in managing hormonal imbalance, menstrual disorders, and thyroid regulation in women.

Khan and Mehta (2017) concluded that combined treatment using mudras and medicines resulted in faster and more sustainable recovery in patients with migraine, stress, and hypertension. Rajput (2021) demonstrated reduced medication requirements among patients practicing mudra yoga consistently over six months. Sen and Ghosh (2019) highlighted the cost-free, accessible nature of mudra therapy and its growing acceptance in rural India. Yadav (2020) found increased mental stability and positivity among depressed patients practicing Prana, Gyan, and Shunya Mudra. Tiwari and Shah (2022) observed faster energy recovery, emotional stability, and reduced pain in post-operative patients practicing mudras. Bajpai (2018) emphasized integrating mudra therapy into modern medical systems to reduce pharmaceutical expenditure.

III. METHODOLOGY

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A. Nature of Research: The study adopts a descriptive and comparative research design.

B. Sample Structure: Total participants: 500

Group A (Medicines only): 250

Group B (Medicines + hand mudras): 250

- C. **Sampling Technique:** Participants were selected using random sampling, with efforts made to maintain similarity in age, gender, and health conditions across groups.
- D. **Intervention:** Group B practiced hand mudras (Gyan, Prana, Vayu, Apana, Agni, etc.) for 30 minutes daily over 30 days, while Group A followed physician-prescribed medication only.
- E. **Data Collection Tool:** A five-point scale (1 = No improvement, 5 = Very high improvement) was developed to measure improvement across ten health dimensions.
- F. **Data Analysis:** Data were analyzed using SPSS software, employing descriptive statistics and ANOVA to compare group-wise improvement levels.

IV. THERAPEUTIC EFFECTS OF HAND MUDRAS VERSUS MEDICINES ALONE

In the contemporary era, while allopathic treatment is widely recognized for its rapid effects, its associated side effects and limitations have led to the growing popularity of complementary therapeutic approaches. Among these, hand mudras represent a yogic and Ayurvedic practice that is not only used for achieving mental and physical balance but has also been found effective in the treatment of various ailments. The primary function of mudras is to regulate the flow of energy within the body, thereby strengthening the body's natural healing mechanisms and enhancing immunity.

This study seeks to examine the extent to which respondents who practiced hand mudras regularly in combination with medicinal treatment experienced greater health improvement compared to those who relied solely on medicines. The comparison was conducted statistically to determine whether the integrated use of hand mudras plays a meaningful role in disease management. For this purpose, participants' perceived improvement was measured across twelve distinct dimensions (Importance_1 to Importance_12).

TABLE 1: ANOVA ANALYSIS – THERAPEUTIC APPLICATION OF HAND MUDRAS VERSUS USE OF MEDICINES ALONE

		N	Average	SD	SE	95% difference	
						Min	Max
IMPO R_1	Medicinal use of hand mudras	250	4.364	.73871	.04672	4.2720	4.4560
	Only use of medicine	250	4.212	1.05998	.06704	4.0800	4.3440
	Total	500	4.288	.91582	.04096	4.2075	4.3685
IMPO R_2	Medicinal use of hand mudras	250	4.260	.62767	.03970	4.1818	4.3382
	Only use of medicine	250	4.060	.99416	.06288	3.9362	4.1838
	Total	500	4.160	.83654	.03741	4.0865	4.2335
IMPO R_3	Medicinal use of hand mudras	250	4.372	.64130	.04056	4.2921	4.4519
	Only use of medicine	250	3.860	.67693	.04281	3.7757	3.9443
	Total	500	4.116	.70678	.03161	4.0539	4.1781
IMPO R_4	Medicinal use of hand mudras	250	4.272	.80036	.05062	4.1723	4.3717
	Only use of medicine	250	4.156	1.02756	.06499	4.0280	4.2840
	Total	500	4.214	.92190	.04123	4.1330	4.2950
IMPO R_5	Medicinal use of hand mudras	250	4.468	.78193	.04945	4.3706	4.5654
	Only use of medicine	250	3.804	.95563	.06044	3.6850	3.9230
	Total	500	4.136	.93341	.04174	4.0540	4.2180
IMPO R_6	Medicinal use of hand mudras	250	3.980	1.05454	.06669	3.8486	4.1114
	Only use of medicine	250	3.360	1.00919	.06383	3.2343	3.4857
	Total	500	3.670	1.07676	.04815	3.5754	3.7646
IMPO R_7	Medicinal use of hand mudras	250	4.332	.77471	.04900	4.2355	4.4285
	Only use of medicine	250	4.040	1.08956	.06891	3.9043	4.1757
	Total	500	4.186	.95563	.04274	4.1020	4.2700
IMPO R_8	Medicinal use of hand mudras	250	3.940	.87376	.05526	3.8312	4.0488
	Only use of medicine	250	3.856	.92882	.05874	3.7403	3.9717
	Total	500	3.898	.90179	.04033	3.8188	3.9772
IMPO R_9	Medicinal use of hand mudras	250	3.568	1.11461	.07049	3.4292	3.7068
	Only use of medicine	250	3.600	1.14070	.07214	3.4579	3.7421

	Total	500	3.584	1.12671	.05039	3.4850	3.6830
IMPO R_10	Medicinal use of hand mudras	250	3.712	1.11085	.07026	3.5736	3.8504
	Only use of medicine	250	3.684	1.07926	.06826	3.5496	3.8184
	Total	500	3.698	1.09416	.04893	3.6019	3.7941
IMPO R_11	Medicinal use of hand mudras	250	3.940	.76599	.04845	3.8446	4.0354
	Only use of medicine	250	3.380	1.12099	.07090	3.2404	3.5196
	Total	500	3.660	.99920	.04469	3.5722	3.7478
IMPO R_12	Medicinal use of hand mudras	250	3.416	1.22020	.07717	3.2640	3.5680
	Only use of medicine	250	3.424	1.24999	.07906	3.2683	3.5797
	Total	500	3.420	1.23396	.05518	3.3116	3.5284

ANOVA						
		Sum of TOTAL	df	Average	F	Sig
IMPOR_1	Between group	2.888	1	2.888	3.460	.063
	Within group	415.640	498	.835		
	Total	418.528	499			
IMPOR_2	Between group	5.000	1	5.000	7.234	.007
	Within group	344.200	498	.691		
	Total	349.200	499			
IMPOR_3	Between group	32.768	1	32.768	75.373	.000
	Within group	216.504	498	.435		
	Total	249.272	499			
IMPOR_4	Between group	1.682	1	1.682	1.983	.160
	Within group	422.420	498	.848		
	Total	424.102	499			
IMPOR_5	Between group	55.112	1	55.112	72.294	.000
	Within group	379.640	498	.762		
	Total	434.752	499			
IMPOR_6	Between group	48.050	1	48.050	45.106	.000
	Within group	530.500	498	1.065		
	Total	578.550	499			
IMPOR_7	Between group	10.658	1	10.658	11.926	.001
	Within group	445.044	498	.894		
	Total	455.702	499			
IMPOR_8	Between group	.882	1	.882	1.085	.298
	Within group	404.916	498	.813		
	Total	405.798	499			
IMPOR_9	Between group	.128	1	.128	.101	.751
	Within group	633.344	498	1.272		
	Total	633.472	499			
IMPOR_10	Between group	.098	1	.098	.082	.775
	Within group	597.300	498	1.199		
	Total	597.398	499			
IMPOR_11	Between group	39.200	1	39.200	42.531	.000
	Within group	459.000	498	.922		
	Total	498.200	499			
IMPOR_12	Between group	.008	1	.008	.005	.942
	Within group	759.792	498	1.526		
	Total	759.800	499			

This analysis is based on twelve health-related dimensions (Importance_1 to Importance_12), in which the perspectives of respondents from two groups—“therapeutic application of hand mudras” and “use of medicines alone”—were compared. For each variable, the mean, standard deviation, standard error, and 95% confidence interval were calculated, and ANOVA was employed to examine differences between the groups.

For Importance_1, the mean score for the mudra group was 4.364, while it was 4.212 for the medicine-only group. The F-value was 3.460 with a p-value of 0.063, which exceeds the 0.05 threshold, indicating that the difference is not statistically significant. In the case of Importance_2, the F-value was 7.234 with a p-value of 0.007, revealing a statistically significant difference between the two groups. For Importance_3, Importance_5, Importance_6, and Importance_11, the p-values were 0.000, indicating highly significant differences across these dimensions. Notably, for Importance_3, the mean score of the mudra group (4.372) was substantially higher than that of the medicine-only group (3.860), reflecting a pronounced difference in perceived improvement.

Conversely, for Importance_4, Importance_8, Importance_9, Importance_10, and Importance_12, the p-values were greater than 0.05, suggesting that the differences between the two groups were not statistically significant. Finally, for Importance_7, the F-value of 11.926 and a p-value of 0.001 clearly indicate a statistically significant difference, confirming meaningful variation in respondents' perceptions for this dimension.

Overall, the analysis demonstrates that, in most cases, respondents who practiced hand mudras reported more positive health outcomes compared to those who relied solely on medicinal treatment. In several specific dimensions, these differences were not only observable but also statistically validated, underscoring the therapeutic relevance of hand mudra practices as a complementary intervention.

V. CONCLUSION

The Conclusions of this study clearly indicate that practices rooted in **mudra science**, when performed with proper training, discipline, and guided instruction, can lead not only to enhanced concentration and meditative states but also open significant possibilities for **spiritual healing and inner energy activation**. Therefore, it is essential to re-establish mudra science within the contemporary context and accord it a respected place within **yoga, healthcare, and educational systems**. Such integration can contribute meaningfully to holistic and sustainable health outcomes.

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