Case series study on the management of lower back pain using individualized homoeopathic medicine in conjunction with physiotherapy

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Abstract
Background: Lower back discomfort, which affects people of all ages and frequently results from mechanical causes, is a common cause of both routine and emergency medical consultations. Homoeopathy is often explored for pain management, including lower back pain, due to its personalized approach. This study was conducted to contribute evidence regarding the potential benefits of homoeopathy in conjunction with physiotherapy for managing lower back pain.

Methodology: From April 2023 to April 2024, an observational case series study was conducted, including thirty patients aged 25 to 65, with lower back pain. These thirty patients were divided into two groups based on the mode of treatment, with Group I receiving only homoeopathic medicine and Group II receiving homoeopathic medicine along with physiotherapy. Numerical pain scores were recorded before and after therapy, and based on this data, results and conclusions were drawn.

Results and Conclusion: The paired t-test was conducted to assess outcomes for the pain score of 30 cases after four weeks of treatment and the result found a p-value < 0.0001 (df = 29). Additionally, paired t-tests were performed to evaluate outcomes in each group, values obtained for Group-I (p<0.0001, df = 11) and Group II (p<0.0001, df = 17) which was highly significant. However, when comparing these two groups using an independent t-test, a p-value of 0.8974 was obtained for df = 28. Indicating no statistically significant difference between these two groups. From this study observed that homoeopathic treatment administered individually or with physiotherapy, showed a positive effect in the management of lower back pain.

Keywords: Homoeopathy, lower back pain, physiotherapy, numerical pain score

Introduction
The most prevalent musculoskeletal ailment that impairs quality of life is lower back pain (LBP), particularly when it persists. While LBP refers to a specific symptom, it is a complex clinical disease that may result in disability, depending on its course and intensity. While estimates of the one-year incidence of any LBP episode have varied from 1.5% to 36%, some studies have placed the one-year incidence of a first episode between 6.3% and 15.4%. According to one data, eighty-four per cent of adults will experience LBP at some point in their lives. The likelihood of experiencing another LBP episode after the initial one is rather significant; recurrence rates within a year might range from 24% to 80% [1]. Lower back pain can be caused by a variety of conditions, including psychological, congenital, traumatic, inflammatory, neoplastic, degenerative, metabolic, referred pain, and other reasons. A complete medical history and physical examination are necessary to determine the cause of lower back pain. Early detection of pain onset is critical [2]. Based on how long it has lasted, lower back pain (LBP) can be divided into two categories: acute LBP and chronic LBP.

Acute back pain, which lasts shorter than one month, is typically caused by trauma or rapid changes in the course of a chronic condition, such as malignancy [2]. Chronic cases that continue for more than 12 weeks may be mechanical in nature or the result of long-term problems [2]. LBP is more common in females, and it increases with age in both sexes. Some of the risk factors for lower back pain that can increase the likelihood of developing or aggravating it include age (30-40), a sedentary lifestyle, smoking, obesity, improper lifting techniques, and certain medical conditions such as arthritis and cancer [3].
In the current situation, it is important to explore safe and holistic homoeopathic treatment that may be beneficial in addressing this prevalent distressing condition. This research presents the findings of an observational case series study that utilized appropriate homoeopathic treatment, with or without physiotherapy, to manage lower back pain (LBP) in 30 patients, with four regular follow-ups. Homoeopathy is growing popular as a treatment for chronic disorders. Homoeopathy is a comprehensive medical system that emphasises the body-mind connection. It seeks to address the underlying cause of sickness in each patient by taking into consideration their physical constitution as well as their intellectual and mental traits; as a result, each patient is treated individually. Homoeopathic medicine starts a healing process in the patient, which is good for their overall well-being. Homoeopathy is commonly considered for pain management, especially lower back pain, because of its individualized approach. However, a comparative analysis with physiotherapy, another popular approach for lower back pain, is required to determine their relative effectiveness. This comparison aims to provide essential information into the efficacy of various methods of treatment, which will help patients suffering from lower back pain choose better medical treatment [4].

Physiotherapy is also recommended in cases of lower back pain. This involves exercises aimed at strengthening lower back muscles and conditioning spinal tissues and joints. The goals of physiotherapy include reducing painful symptoms in the lower back and/or leg, improving low back function for better daily activity tolerance, enhancing spine flexibility and range of motion, and establishing a maintenance program to prevent future back issues [5].

Previously published research has demonstrated the effectiveness of homoeopathy in treating chronic lower back pain (CLBP). Individualized homoeopathic treatment has been shown to improve health-related quality of life and reduce the need for additional healthcare services in individuals with lower back pain, according to a prospective multicentre observational trial spanning two years. Forty-eight doctors treated 129 individuals (64.3% women, mean age 43.6 +/- 12.7 years) with CLBP, with an average duration of 9.6 +/- 9.0 years, along with other chronic disorders. Notably, 91.3% of the patients had received prior treatment. On average, patients received 6.8 +/- 6.3 homoeopathic prescriptions. The patients reported significant effect sizes (Cohen's d from 1.67 to 2.55), and quality of life (QoL) scores (SF-36 physical component scale $d = 0.33$; mental component scale $d = 0.54$) showed improvement. Additionally, the utilization of conventional health services and treatments was halved [6].

Moreover, a double-blind, randomized, placebo-controlled study with 192 participants conducted in Germany between December 2003 and May 2007 demonstrated the efficacy of homoeopathic medication combinations in treating persistent low back pain [7]. These studies collectively support the effectiveness of homoeopathy in reducing lower back pain (LBP) and improving function. However, there is limited literature available on the potential benefits of combining homoeopathy with physiotherapy for LBP. This study was conducted to explore the potential benefits of individualized homoeopathic medicine in managing lower back pain.

**Objectives**

To assess the benefits of combining individualized homoeopathic medicine with physiotherapy for pain reduction in the management of lower back pain.

To evaluate the effects of homoeopathic medicines on persons suffering from lower back pain with a particular focus on pain reduction and to determine the most often prescribed medicines.

**Materials and Methods**

Thirty cases of lower back pain were enrolled from the outpatient department of Jawaharlal Nehru Homoeopathic Medical College Hospital. The participants of the study were divided into two treatment groups: one receiving only homoeopathic medication (12 cases), and the other receiving both homoeopathic medicine and physiotherapy (18 cases).

Patients included in the study were clinically diagnosed with lower back pain based on predetermined criteria. They were randomly assigned to Group I (receiving homoeopathic medicine) or Group II (receiving homoeopathic medicine and physiotherapy). Data collection followed standardized procedures, with each patient's symptoms evaluated for personalized treatment.

Physiotherapy was administered alongside homoeopathic medicine in Group II, with sessions held once a week for four weeks, in addition to daily medication. Pain severity was assessed using the Universal Pain Assessment Tool before and after treatment, with scores converted into percentages to measure pain reduction. Follow-ups were conducted every seventh day to monitor pain progression.

**Criteria**

**Inclusion Criteria**

- Patients of both genders aged between 25 and 65 years.
- Patients with Clinical presentation of Lower Back Pain.
- All socioeconomic statuses will be considered.
- Patients are ready to receive homoeopathic treatment with or without combined physiotherapy.

**Exclusion Criteria**

- Cases without Follow-Ups.
- Current use of alternative medicine or complementary therapies for pain management (e.g., acupuncture, chiropractic care, herbal supplements)
- Pregnant women or Lactating women.

**Type of Study**

Observational Case series study

**Study duration**

12 Months

**Null hypothesis (h0)**

The combination of homoeopathic treatment and physiotherapy does not provide any additional benefits for lower back pain.

**Research hypothesis (h1)**

Combination of homoeopathic treatment and physiotherapy does provide any additional benefits for lower back pain.

**Result and Discussion**

The objectives of the study were to assess pain reduction through interventions in patients suffering from lower back pain. The data were collected from patients visiting
Jawaharlal Nehru Homoeopathic Medical College and Hospital for the treatment of lower back pain in patients aged between 25-65 years.

The study analyzed 30 cases of lower back pain, examining symptom totality and prescribing indicated remedies based on individual symptoms. The majority of cases exhibited symptoms corresponding to Rhus tox and Bryonia. Among the 30 cases, Rhus tox was prescribed for 5 patients (17%), Bryonia for another 5 patients (17%), Pulsatilla for 4 patients (13%), and Kali Carb for 4 patients (13%). Additionally, two cases involved the prescription of other medicines such as Lachesis, Arnica, Ruta, Nat. Mur, Cal. Carb, and Nux vomica. Bryonia Alba and Rhus tox emerged as the most frequently prescribed remedies, each used in five cases out of the total ten different medicines employed (Fig 1 & 2).

In terms of demographic distribution, the study found that individuals aged 56 to 66 accounted for the highest number of cases (36.67%), followed by the 46–55 age group (30%), the 36–45 age group (23.33%), and the 25–35 age group (10%). Furthermore, the study noted a higher prevalence of lower back pain among women, with 18 female cases compared to 12 male cases. The highest incidence within the female population was in the 56–65 age group (26.67%) (Fig 3).

Moreover, in terms of potency usage, out of the 30 cases examined, 19 received 200C potency medicine. Among these, 7 cases exhibited marked improvement, 9 cases showed improvement, and 3 cases did not respond to treatment. Additionally, 7 cases were treated with 30C potency, resulting in 3 cases with marked improvement, 3 cases showing improvement, and 1 case showing no improvement. Finally, 4 cases were administered 1M potency, with 3 cases experiencing marked improvement and 1 case showing improvement (Fig 4).

The analysis of pain scores before and after homoeopathic treatment alone or in combination with physiotherapy revealed significant differences. The mean numerical pain score decreased from 5.583 before treatment to 2.75 after treatment for homoeopathy alone, and from 6.555 before treatment to 3.78 after treatment for the combination therapy. The respective mean reductions in pain scores were 2.833 and 2.775. While there was no significant difference in the mean reduction between the two treatment groups (2.833 for homoeopathy alone versus 2.775 for combination therapy), both groups experienced a notable reduction in pain scores post-treatment.

Additionally, the difference between the pain scores before and after treatment was converted into percentage using a percentage decrease calculator. Cases were then categorized into three groups based on their improvement: markedly improved (≥ 50 – 100%), improved (≥ 25 - 50%), and not improved (< 25%). In Group I (Homoeopathic medicine alone, 12 patients), 5 patients showed marked improvement, 4 showed improvement, and 3 did not experience significant improvement. In Group II (combination of homoeopathy and physiotherapy, 18 patients), 8 patients showed marked improvement, 9 showed improvement, and 1 did not experience significant improvement (Fig 6 & 7).

Lastly, the paired t-test was conducted to assess outcomes for the pain score of 30 cases after four weeks of treatment and the result showed a p-value < 0.0001 (T-test value = 13.614, df = 29). Additionally, paired t-tests were performed to evaluate outcomes in each group, values obtained for Group I (p<0.0001, T-test value = 6.6914, df = 11) and Group II (p<0.0001, T-test value = 13.4196, df = 17) which was highly significant. However, when comparing these two groups using an independent t-test, a p-value of 0.8974 (T-test value = 0.1301) was obtained for df = 28. Furthermore, the Chi-square test, with df = 2, yielded a calculated value of 2.516, which was lower than the critical value of 5.991. Both tests failed to reject the null hypothesis. It can be concluded that there was no noticeable difference in the levels of improvement between the two groups when comparing them. However, significant improvement was observed within each group after management. Thus, it is proposed that Homoeopathic treatment, whether administered individually or in conjunction with physiotherapy, showed a positive effect in the management of lower back pain.

![CASES VS MEDICINES](https://www.homoecophiticjournal.com)

**Fig 1:** Medicines prescribed to patients who have lower back pain
Fig 2: The distribution of medicine based on gender and its impact on outcomes.

Fig 3: Distribution of cases according to gender and age.

Fig 4: Distribution of cases according to different potencies.
Fig 5: Pain score before and after homoeopathy treatment alone or a combination of homoeopathy and physiotherapy

Fig 6: Result After treatment with an individual homoeopathic medicine

Fig 7: Result After treatment with a combination of homoeopathic medicine with physiotherapy
Limitations of the study
The limitation of this study is small sample size and short duration of treatment. A longer treatment period would allow us to see whether the pattern of improvement persists over time. A greater sample size could make it simpler to see differences between the two groups.

Conclusion
Based on the study findings, Homoeopathic treatment, whether administered alone or in combination with physiotherapy, effectively reduces lower back pain. Specific homoeopathic remedies such as Bryonia Alba and Rhus tox have demonstrated efficacy in managing symptoms associated with lower back pain. Interestingly, the study did not find a statistically significant difference in improvement outcomes between two groups. It effectively conveys the need for further research to explore optimal treatment combinations and evaluate the long-term benefits of homoeopathic interventions for back pain management. It also acknowledges the limitations of the current study and the necessity for larger-scale research to conclusively determine the benefits of combining physiotherapy with homoeopathic medicine in the management of lower back pain.

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Abbreviation list
LBP, Lower Back Pain
CLBP, Chronic Lower Back Pain
Df, Degrees of freedom
P-Value, Probability Value

Conflict of interest
Not available

References

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