IJCRT.ORG ISSN : 2320-2882

INTERNATIONAL JOURNAL OF CREATIVE RESEARCH THOUGHTS (IJCRT)

An International Open Access, Peer-reviewed, Refereed Journal

CLINICAL OUTCOMES OF INDIVIDUALIZED CALCAREA CARBONICA TREATMENT IN DYSMENORRHOEA AMONG FEMALE ADOLESCENTS: A CLINICAL STUDY

Dr. Sindhu Katnapally
MD (Homoeopathy), Department of Paediatrics
MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, Telangana, India
Corresponding author: Dr. Sindhu Katnapally

ABSTRACT

Background: Dysmenorrhoea is a common menstrual disorder among adolescent girls and may adversely affect daily activities and health-related quality of life. The present study evaluated clinical outcomes following individualized homoeopathic treatment with *Calcarea carbonica*.

Objective: To evaluate changes in dysmenorrhoea severity, health-related quality of life (HRQoL), and haemoglobin levels before and after individualized treatment with *Calcarea carbonica*.

Methods: A clinical study was conducted among 30 female adolescents aged 14–19 years with dysmenorrhoea at MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, during 2023–2025. Participants were selected according to predefined inclusion and exclusion criteria. *Calcarea carbonica* was prescribed individually according to the totality of symptoms in 200C or 1M potency, with repetition according to clinical requirement. Participants were followed monthly for approximately six months. Dysmenorrhoea-related outcomes were assessed using the WaLIDD score and health-related quality of life using the RAND 36-Item Health Survey (RAND-36). Haemoglobin levels were also recorded.

Results: The mean WaLIDD score decreased from 6.87 before treatment to 1.63 after treatment, representing a mean reduction of 5.23 points. The difference was statistically significant (paired t-test, $t = 15.49$, $df = 29$, $p < 0.001$). The mean HRQoL score increased from 67.93 before treatment to 88.50 after treatment, representing a mean improvement of 20.57 points (paired t-test, $t = 19.11$, $df = 29$, $p < 0.001$). Haemoglobin levels increased in 23 participants (76.67%), while no change was recorded in 7 participants (23.33%).

Conclusion: Individualized treatment with *Calcarea carbonica* was associated with improvement in dysmenorrhoea-related outcomes and HRQoL in the study population. However, the small sample size, single-centre design and absence of a control group limit causal interpretation. Larger controlled studies are required to further evaluate this treatment approach.

Keywords: Dysmenorrhoea; Adolescents; *Calcarea carbonica*

INTRODUCTION

Dysmenorrhoea is a common gynaecological complaint among adolescent females and is characterized by painful menstruation, commonly presenting as cyclical lower abdominal or pelvic pain. It may interfere with routine activities, including school attendance and social activities, and can adversely affect quality of life.[1,2]

Dysmenorrhoea may be classified as primary or secondary depending on the presence or absence of underlying pelvic pathology. Primary dysmenorrhoea occurs without identifiable pelvic pathology, whereas secondary dysmenorrhoea occurs in association with an underlying pelvic condition.[2]

The impact of dysmenorrhoea extends beyond pain itself and may affect physical functioning and health-related quality of life. The present study therefore incorporated the WaLIDD score as a structured measure of dysmenorrhoea severity and functional impact.[3] Health-related quality of life was assessed as an additional outcome measure using the RAND 36-Item Health Survey 1.0.[4]

Homoeopathy follows an individualized approach to prescribing, with selection of the medicinal substance based on the totality of symptoms.[5] In the present study, *Calcarea carbonica* was selected as the medicine under investigation and was prescribed individually according to the clinical presentation and totality of symptoms. *Calcarea carbonica* is described in standard homoeopathic materia medica in association with constitutional and general characteristics relevant to individualized prescribing.[6,7]

Therefore, the present study was undertaken to evaluate the clinical outcomes of individualized treatment with *Calcarea carbonica*.

OBJECTIVE

To evaluate changes in haemoglobin, WaLIDD score and health-related quality of life before and after individualized treatment with *Calcarea carbonica*.

MATERIALS AND METHODS

Study design and setting

A clinical study was conducted on 30 female adolescents diagnosed with dysmenorrhoea. The study was carried out in the outpatient and inpatient departments and during camps conducted by MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, during 2023–2025.

Participants

Female adolescents aged 10–19 years presenting with dysmenorrhoea and having regular menstrual cycles were considered for the study. Participants were enrolled irrespective of socioeconomic status and religion, provided that the patient or guardian was willing to provide consent.

Inclusion criteria

- Female adolescents aged 10–19 years.
- Regular menstrual periods.
- Willingness to participate with consent from the patient or guardian.
- Eligibility irrespective of socioeconomic status and religion.

Exclusion criteria

- Age younger than 10 years or older than 19 years.
- Irregular menstrual periods.
- Irreversible or structural pathology.
- Unwillingness to provide consent.
- Concurrent treatment for other illnesses.

Clinical assessment and case taking

A detailed case history was recorded using a systematic homoeopathic case proforma. The case record included demographic details, presenting complaints and their history, past history, birth history, developmental history, nutritional history, family history and personal history, including physical generals and mental disposition. General physical and systemic examinations were performed, and relevant investigations were undertaken whenever required.

Diagnosis of dysmenorrhoea was based on clinical history and examination. The cases were further analysed according to the totality of symptoms, with particular importance given to mental and physical generals and characteristic symptoms.

Homoeopathic intervention

Calcarea carbonica was prescribed individually according to the totality of symptoms.[5] The potency and dose were selected according to the susceptibility of the individual patient. *Calcarea carbonica* was administered in different potencies according to clinical requirement, with 200C and 1M being used in the study. Repetition of the remedy and subsequent change in potency were based on the clinical response and prescribing totality.

Follow-up

Participants were followed monthly, with assessment of clinical progress and changes in outcome measures. The final assessment was performed after approximately six months of follow-up.

Outcome measures

The WaLIDD score was used to assess the severity and functional impact of dysmenorrhoea.[3] Health-related quality of life was assessed using the RAND 36-Item Health Survey 1.0 (RAND-36).[4] A QOL score on a 0–100 scale was recorded before and after treatment, and the pre-treatment and post-treatment scores were compared. Haemoglobin levels were also recorded before and after treatment.

Statistical analysis

Pre-treatment and post-treatment observations were compared using a paired t-test. Thirty paired observations were analysed, giving 29 degrees of freedom. A two-sided p value <0.05 was considered statistically significant.

Ethical approval

The study was approved by the Institutional Ethical Committee of MNR Homoeopathic Medical College and Hospital, Sangareddy, at its meeting held on 11 August 2023 (Letter No. MNRHMC/academic/135; dated 09 September 2023). Written informed consent was obtained from the parent/guardian of each participant before enrolment. Participation was voluntary, and participants were informed of their right to withdraw from the study at any time without affecting their medical care. Confidentiality of participant information and identity was maintained throughout the study and in any resulting publication.

RESULTS

Thirty female adolescents aged 14–19 years with dysmenorrhoea were included in the clinical study. The study was conducted at MNR Homoeopathic Medical College and Hospital, Fasalwadi, Sangareddy, during 2023–2025. Twelve participants (40.00%) were aged 19 years, 11 (36.67%) were aged 18 years, 5 (16.67%) were aged 17 years, and 1 each (3.33%) were aged 16 and 14 years.

Table 1. Age distribution of participants

Age (years)	n	%
14	1	3.33
16	1	3.33
17	5	16.67
18	11	36.67
19	12	40.00
Total	30	100.00

The age at menarche was 12–13 years in 22 participants (73.33%), while 4 participants (13.33%) attained menarche at 10–11 years and 4 (13.33%) at 14–15 years.

Table 2. Distribution according to age at menarche

Age at menarche (years)	n	%
10–11	4	13.33
12–13	22	73.33
14–15	4	13.33
Total	30	100.00

Change in WaLIDD score

Baseline WaLIDD scores ranged from 5 to 10, while post-treatment scores ranged from 0 to 8.

Table 3. Change in WaLIDD score

Measure	Before treatment	After treatment	Mean difference	Paired t	df	p
WaLIDD score	6.87	1.63	5.23	15.49	29	<0.001

The mean WaLIDD score decreased from 6.87 before treatment to 1.63 after treatment, representing a mean reduction of 5.23 points. The difference between pre-treatment and post-treatment scores was statistically significant (paired t-test, $t = 15.49$, $df = 29$, $p < 0.001$).

Change in HRQoL

Table 4. Change in health-related quality of life

Measure	Before treatment	After treatment	Mean difference	Paired t	df	p
HRQoL score	67.93	88.50	20.57	19.11	29	<0.001

The mean HRQoL score increased from 67.93 before treatment to 88.50 after treatment, representing a mean improvement of 20.57 points. The pre-treatment and post-treatment scores differed significantly (paired t-test, $t = 19.11$, $df = 29$, $p < 0.001$).

Change in haemoglobin

Haemoglobin increased in 23 participants (76.67%), while no change was recorded in 7 participants (23.33%).

Table 5. Change in haemoglobin status

Haemoglobin status	n	%
Increased	23	76.67
No change	7	23.33
Total	30	100.00

DISCUSSION

Dysmenorrhoea is a common problem during adolescence and can interfere with daily functioning and quality of life.[1,2] The present clinical study evaluated outcomes of individualized treatment with *Calcarea carbonica* in 30 female adolescents with dysmenorrhoea, using the WaLIDD score, HRQoL and haemoglobin as outcome measures.

In the present study, the mean WaLIDD score decreased from 6.87 before treatment to 1.63 after treatment, with a mean reduction of 5.23 points. The paired analysis showed a statistically significant difference ($t(29) = 15.49$, $p < 0.001$). The WaLIDD instrument was developed as a structured measure incorporating working ability, pain location, pain intensity, days of pain and dysmenorrhoea-related characteristics.[3] The observed reduction therefore indicates improvement in the measured dysmenorrhoea-related symptom and functional score during the study period.

A corresponding improvement was observed in HRQoL. The mean HRQoL score increased from 67.93 to 88.50, representing a mean increase of 20.57 points. The paired analysis demonstrated a statistically significant difference ($t(29) = 19.11$, $p < 0.001$). The RAND 36-Item Health Survey is a widely used health-status instrument covering multiple dimensions of physical and emotional health.[4] In this study, the improvement in the study QOL score occurred alongside the reduction in WaLIDD score.

The homoeopathic intervention was individualized according to the totality of symptoms, with *Calcarea carbonica* prescribed in 200C or 1M potency according to clinical assessment. This individualized approach is consistent with the prescribing principles described in the Organon of Medicine.[5] *Calcarea carbonica* is also described in standard homoeopathic materia medica in association with constitutional and general characteristics relevant to individualized prescribing.[6,7] However, because the study did not include a control or comparison group, the observed improvement cannot be attributed exclusively to *Calcarea carbonica*.

An increase in haemoglobin was recorded in 23 participants (76.67%), while no change was recorded in 7 participants (23.33%). Haemoglobin was included as a secondary outcome, but the study was not specifically designed to evaluate *Calcarea carbonica* as a treatment for anaemia. Factors other than the intervention may influence haemoglobin levels; therefore, this observation should be interpreted cautiously and should not be considered evidence of a direct haematinic effect of *Calcarea carbonica*.

The findings should be interpreted in the context of the methodological limitations. The sample consisted of only 30 participants and there was no untreated, placebo or active-comparator group. Treatment was individualized, with variation in potency and repetition, making it difficult to isolate the effect of a uniform dose regimen. The follow-up period was approximately six months, and longer-term persistence of improvement was not assessed. Potential confounding factors such as lifestyle, dietary practices and other influences on menstrual symptoms may also have contributed to the observed outcomes.

LIMITATIONS

The study has several limitations. The sample size was small and limited to 30 female adolescents from a single institution. The absence of a control or comparison group limits the ability to determine whether the observed improvements were attributable specifically to *Calcarea carbonica*. The individualized prescribing approach involved variation in potency and repetition, limiting assessment of a uniform treatment regimen. The follow-up period was approximately six months, and longer-term persistence of improvement was not assessed. In addition, potential confounding factors such as lifestyle, dietary practices and other influences on menstrual symptoms may have contributed to the observed outcomes. Larger, multicentre, controlled studies with longer follow-up are required to confirm these findings.

CONCLUSION

Individualized treatment with *Calcarea carbonica* was associated with improvement in dysmenorrhoea-related WaLIDD scores and health-related quality of life in the study population. However, the small sample size, single-centre design and absence of a control group limit causal interpretation. Larger controlled studies with longer follow-up are required to further evaluate this treatment approach.

CONFLICT OF INTEREST

The author declares that there is no conflict of interest.

ACKNOWLEDGEMENT

The author expresses sincere gratitude to the management of MNR Homoeopathic Medical College and Hospital, Sangareddy, for providing the facilities and support required for conducting the study. The author also expresses gratitude to the Institutional Ethical Committee, the study participants and their parents/guardians for their cooperation and participation. The author acknowledges the guidance and support of Dr. Bhagyashree V. Verma, Professor, Department of Paediatrics, MNR Homoeopathic Medical College and Hospital, Sangareddy.

FUNDING

No external funding was received for this study.

DATA AVAILABILITY

The data supporting the findings of this study are available from the corresponding author on reasonable request, subject to appropriate confidentiality and ethical considerations.

AUTHOR CONTRIBUTIONS

The author contributed to the conception and design of the study, data collection, clinical assessment, analysis and interpretation of data, and preparation of the manuscript.

REFERENCES

1. World Health Organization. Adolescent health [Internet]. Geneva: World Health Organization; 2024. Available from: https://www.who.int/health-topics/adolescent-health
2. Konar H. Dutta's textbook of obstetrics. 10th ed. New Delhi: Jaypee Brothers Medical Publishers; 2023.
3. Teherán AA, Piñeros LG, Pulido F, Mejía Guatibonza MC. WaLIDD score, a new tool to diagnose dysmenorrhea and predict medical leave in university students. Int J Womens Health. 2018;10:35-45.
4. Hays RD, Sherbourne CD, Mazel RM. The RAND 36-item health survey 1.0. Health Econ. 1993;2(3):217-227. doi:10.1002/hec.4730020305.
5. Hahnemann S. Organon of medicine. 6th ed. New Delhi: B Jain Publishers; 2016.
6. Boericke W. Pocket manual of homoeopathic materia medica and repertory. New Delhi: B Jain Publishers; 2012.
7. Clarke JH. A dictionary of practical materia medica. Essex: Health Science Press; 1982.