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Multimodal Physiotherapy Management in Subacute Bell's Palsy: A CARE-Compliant Case Report

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Abstract

Background: Bell's palsy is an acute peripheral facial nerve paralysis that causes facial asymmetry and functional impairment. Although spontaneous recovery commonly occurs during the acute phase, patients entering the subacute stage often experience slower recovery and may require targeted physiotherapy intervention. Evidence regarding multimodal physiotherapy approaches during the subacute phase remains limited.

Objective: This case report aimed to describe the clinical outcomes of multimodal physiotherapy in a patient with subacute Bell's palsy.

Methods: This study was a CARE-compliant single-case report involving a 55-year-old woman diagnosed with left-sided Bell's palsy approximately 10 weeks after symptom onset. The patient underwent multimodal physiotherapy consisting of infrared therapy, massage, manual lymphatic drainage, and mirror exercise for six sessions over three weeks. Outcomes were evaluated using the Numeric Rating Scale (NRS), Ugo Fisch Scale, and House–Brackmann Scale at baseline and after intervention.

Results: After six treatment sessions, movement pain and tenderness decreased from 1/10 and 2/10 to 0/10, respectively. The Ugo Fisch score improved from 35% to 60%, indicating clinically meaningful functional recovery. The House–Brackmann grade improved from grade IV to grade III. Subjectively, the patient reported improved eye closure, reduced facial stiffness, and better confidence during daily activities.

Conclusion: Multimodal physiotherapy may contribute to clinically meaningful improvements in facial motor function and pain reduction in patients with subacute Bell's palsy. However, further studies with larger sample sizes and controlled designs are required to confirm these findings.

Keywords
Bell Palsy; Facial Paralysis; Physical Therapy Modalities; Rehabilitation; Mirror Therapy

Introduction

Bell's palsy is the most common cause of acute unilateral peripheral facial paralysis resulting from dysfunction of the seventh cranial nerve. The condition is characterized by sudden facial muscle weakness that commonly causes facial asymmetry, impaired eye closure, speech difficulties, mastication problems, altered taste sensation, and psychosocial distress due to changes in facial expression.[1] The global incidence of Bell's palsy ranges from 11 to 53.3 cases per 100,000 population annually, with no substantial differences reported between men and women.[2] In addition to physical impairment, prolonged facial dysfunction may negatively affect social participation, emotional well-being, and quality of life because facial expression plays an important role in communication and interpersonal interaction.

Although Bell's palsy is generally considered idiopathic, several mechanisms have been proposed in its pathogenesis, including viral reactivation, inflammatory edema, microvascular ischemia, immune-mediated responses, and metabolic disturbances.[3] The most widely accepted mechanism involves inflammation and edema of the facial nerve within the narrow facial canal, leading to nerve compression and impaired neural conduction.[1] Bell's palsy is also frequently associated with conditions such as diabetes mellitus, upper respiratory tract infection, hypertension, and exposure to cold environments.[3] Most patients experience spontaneous recovery within three weeks to three months after symptom onset, even without specific intervention.[4] However, approximately 15–30% of patients may develop incomplete recovery, persistent weakness, synkinesis, facial stiffness, or long-term functional limitations.[5] The high spontaneous recovery rate also creates challenges in evaluating therapeutic effectiveness because clinical improvement may occur naturally during the early phase of the disease.

Current international guidelines recommend oral corticosteroids initiated within 72 hours after symptom onset as the primary treatment for acute Bell's palsy because of their anti-inflammatory effects.[2] Antiviral therapy may also be considered in selected patients with suspected viral involvement. Nevertheless, the effectiveness of pharmacological therapy substantially decreases once patients enter the subacute or chronic phase because the acute inflammatory process has usually subsided.[6] Consequently, rehabilitation-based interventions become increasingly important during the later stages of recovery, particularly for patients with persistent facial weakness, impaired motor control, and residual functional deficits. Despite the increasing clinical use of physiotherapy in Bell's palsy management, no universally accepted multimodal physiotherapy protocol has been established specifically for patients in the subacute-to-chronic phase

Several physiotherapy modalities have been investigated for Bell's palsy rehabilitation, including electrical stimulation, massage, facial exercise, neuromuscular retraining, and mirror exercise.[5,7] Previous evidence suggests that facial exercise therapy may improve facial symmetry, muscular coordination, and functional recovery in patients with peripheral facial paralysis.[7] Mirror

exercise, in particular, has demonstrated promising outcomes through visual feedback-mediated neuroplasticity mechanisms that facilitate cortical reorganization and motor relearning.[8] Infrared therapy may contribute to pain reduction and local circulation improvement through thermal vasodilation effects, whereas massage may help maintain muscle flexibility and reduce facial stiffness.[6] Manual lymphatic drainage (MLD) is also proposed to reduce perivascular tissue congestion surrounding the facial nerve, thereby potentially minimizing neural compression and facilitating recovery. However, most previous studies have evaluated these interventions separately or focused primarily on acute-stage Bell's palsy management.

Evidence regarding integrated multimodal physiotherapy approaches in subacute-to-chronic Bell's palsy remains limited. Existing studies predominantly investigate single therapeutic modalities, while evidence supporting the combined use of infrared therapy, massage, manual lymphatic drainage, and mirror exercise is still scarce.[6] In addition, relatively few reports have comprehensively documented patient outcomes using the International Classification of Functioning, Disability and Health (ICF) framework, which enables evaluation not only of impairment but also of activity limitation and participation restriction.[6] This gap is clinically important because patients presenting beyond the pharmacological therapeutic window often require individualized rehabilitation strategies targeting multiple aspects of facial dysfunction simultaneously.

Therefore, this case report aimed to describe the clinical outcomes of a multimodal physiotherapy program consisting of infrared therapy, massage, manual lymphatic drainage, and mirror exercise in a patient with subacute Bell's palsy. This report also sought to provide a clinically applicable rehabilitation framework based on the International Classification of Functioning, Disability and Health (ICF) model for managing patients with persistent facial dysfunction during the subacute phase.

Methods

This study was a single-case report developed according to the CARE (CAse REport) guideline to ensure comprehensive and transparent clinical reporting.[8,11] A case-report design was selected because it allows detailed observation of clinical changes, intervention responses, and functional outcomes in a patient undergoing physiotherapy management for Bell's palsy. The study focused on documenting the clinical progression of a patient with subacute Bell's palsy who received a multimodal physiotherapy intervention consisting of infrared therapy, massage, manual lymphatic drainage (MLD), and mirror exercise.

The subject was a 55-year-old woman diagnosed with left-sided Bell's palsy who underwent physiotherapy treatment at Soerojo Hospital Magelang. The patient presented approximately 10 weeks after symptom onset, indicating a subacute-to-chronic phase condition. The patient had a medical history of hypertension and hypercholesterolemia, with blood pressure measured at 151/80 mmHg and cholesterol level at 250 mg/dL. Routine medications included bisoprolol, lisinopril, and atorvastatin taken once daily. No previous family history of Bell's palsy was reported. During anamnesis, the patient explained that symptoms initially appeared during hospitalization, where prolonged exposure to cold air conditioning and repeated vomiting associated with dehydration preceded the onset of facial asymmetry and unilateral facial weakness.

Written informed consent was obtained from the patient before intervention and publication of this case report, including permission for the use of anonymized clinical information and photographs when necessary. Based on the internal policy of Soerojo Hospital Magelang, retrospective and non-invasive single-case reports are exempt from formal institutional ethical review provided that patient confidentiality is strictly maintained and standard treatment procedures are not modified. All procedures were conducted according to the ethical principles outlined in the Declaration of Helsinki.

The clinical timeline of the patient is summarized below to provide a clearer overview of disease progression and intervention chronology. The patient's clinical course from symptom onset to follow up was documented systematically to provide a clear overview of the disease progression and physiotherapy management. The chronology of symptom onset, establishment of the medical diagnosis, initial physiotherapy assessment, intervention period, final assessment, and subsequent follow up is presented in Figure 1.

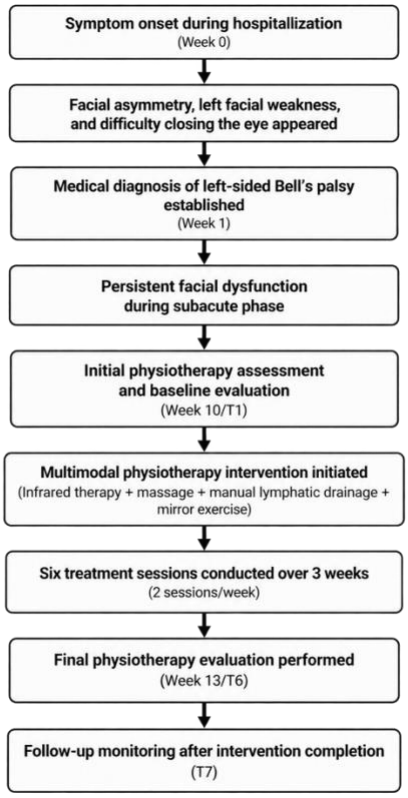

Figure 1. Clinical Timeline of Bell's Palsy and Physiotherapy Management

Clinical examination was performed systematically to establish the physiotherapy diagnosis and exclude possible differential diagnoses. Neurological examination focused on cranial nerve VII through both static and dynamic facial assessment. Static inspection revealed visible facial asymmetry at rest, while dynamic assessment demonstrated impaired eyebrow elevation, incomplete left eye closure, limited smiling ability, and difficulty performing lip-pursing movements.[2] Facial sensory examination remained within normal limits. Stroke was excluded because the facial weakness demonstrated a lower motor neuron pattern involving the forehead region. Ramsay Hunt syndrome was also excluded because no vesicular lesions or otologic manifestations were identified around the ear region. Additional investigations such as electromyography (EMG) and magnetic resonance imaging (MRI) were not performed because the clinical presentation was strongly consistent with idiopathic Bell's palsy and facility limitations restricted further examination.[9]

Subjective examination revealed complaints of persistent facial asymmetry for approximately 2.5 months, difficulty fully closing the left eye, tinnitus-associated ear discomfort, unilateral chewing difficulty, fluid leakage during drinking, and facial stiffness. The patient also reported decreased confidence during social interaction due to facial asymmetry and impaired facial expression.

Objective examination included vital signs assessment and functional facial evaluation. Before intervention, the patient's blood pressure was 151/80 mmHg, heart rate was 84 beats/minute, respiratory rate was 20 breaths/minute, oxygen saturation was 99%, body temperature was 36°C, body weight was 50 kg, and height was 150 cm.[10] The patient remained clinically stable and suitable for physiotherapy intervention throughout the treatment period.

Pain intensity was assessed using the Numeric Rating Scale (NRS), a validated and reliable instrument commonly used for pain evaluation with excellent reliability (ICC >0.90).[11]The Minimal Clinically Important Difference (MCID) for NRS was considered a reduction of at least 2 points on the 0–10 scale. Measurements were consistently performed by the same physiotherapist during each evaluation session to minimize inter-rater variability. Baseline assessment showed no resting pain (0/10), mild movement pain (1/10), and tenderness behind the left ear region (2/10).

Facial functional performance was evaluated using the Ugo Fisch Scale, which assesses facial muscle function through weighted evaluation of five domains: resting symmetry, forehead wrinkling, eye closure, smiling, and lip pursing.[12] The total score ranges from 0% to 100%, with higher scores indicating better facial motor performance. In this study, functional improvement of ≥10% was interpreted as clinically meaningful based on the established categorical interpretation of the scale. Baseline assessment demonstrated a total score of 35%, indicating moderate facial dysfunction, particularly involving the frontalis and orbicularis oculi muscles.

Severity of facial nerve dysfunction was additionally classified using the House–Brackmann Scale, which is widely used in the clinical evaluation of peripheral facial paralysis.[13] At baseline, the patient was categorized as grade IV (moderately severe dysfunction), characterized by absent forehead movement, incomplete eye closure, and marked asymmetry during facial movement. The multimodal physiotherapy intervention was administered over three weeks with a frequency of two sessions per week, resulting in six total treatment sessions. The intervention protocol consisted of infrared therapy, massage, manual lymphatic drainage, and mirror exercise. Before presenting the intervention details, the following table summarizes the dosage and therapeutic objectives of each modality.

Table 1. Multimodal Physiotherapy Intervention Protocol

Intervention	Dosage and Parameters	Therapeutic Objective
Infrared therapy	Non-luminous infrared, distance 40–60 cm, 10 minutes/session, 2 sessions/week	Improve circulation and reduce pain
Massage	Effleurage and friction techniques, light-to-moderate pressure, 5 minutes/session	Reduce muscle stiffness and maintain muscle tone
Manual lymphatic drainage	Very light pressure following facial lymphatic pathways, 5 minutes/session	Reduce tissue congestion
Mirror exercise	10 minutes/session and daily home exercise program	Improve facial symmetry and motor control

Infrared therapy was applied using a non-luminous infrared device positioned approximately 40–60 cm from the facial region for 10 minutes per session. The modality was intended to produce mild thermal vasodilation and analgesic effects.[6] Massage intervention consisted of effleurage and friction techniques applied gently to the facial muscles to reduce stiffness, improve circulation, and maintain muscle flexibility. Manual lymphatic drainage was performed using very light pressure according to standard facial lymphatic drainage principles to facilitate lymphatic circulation and reduce tissue congestion surrounding the facial nerve.

Mirror exercise was performed in front of a mirror to facilitate visual feedback and neuromuscular retraining. Exercises included smiling, eyebrow elevation, eye closure, cheek inflation, forehead wrinkling, and lip pursing. The patient was instructed to perform the same exercises independently at home for approximately 10 minutes daily.[3] Adherence to the home exercise program was monitored using a self-reported exercise log reviewed during each clinical visit.

The intervention protocol remained consistent throughout all treatment sessions because the patient demonstrated stable positive responses without signs of excessive fatigue, worsening symptoms, or synkinesis requiring dose modification. During the intervention period, no adverse events such as skin irritation, increased pain, or neurological deterioration were observed.[5]

Outcome evaluation was performed at baseline (T1) and after completion of the sixth intervention session (T6). Additional follow-up monitoring was conducted one week after intervention completion through remote communication to evaluate maintenance of clinical improvement and identify potential recurrence or synkinesis development.

Data analysis was conducted descriptively by comparing baseline and post-intervention findings using absolute score changes and clinical interpretation based on MCID values. Because this study was a single-case report, inferential statistical analysis was not performed. Instead, emphasis was placed on clinical significance, functional improvement, and patient-reported outcomes following multimodal physiotherapy intervention.

Results

The patient completed all six physiotherapy sessions over a three-week intervention period without interruption or adverse events. Outcome evaluation was conducted at baseline (T1) and after completion of the sixth intervention session (T6) to assess changes in pain intensity, facial motor function, and overall facial nerve impairment following multimodal physiotherapy intervention.

Pain intensity was first evaluated using the Numeric Rating Scale (NRS) to determine changes in subjective pain perception during movement and palpation. The following table summarizes the comparison between baseline and post-intervention pain scores.

Table 2. Changes in Numeric Rating Scale (NRS) Scores

Pain Category	T1	T6	Absolute Change	Clinical Interpretation
Resting pain	0/10	0/10	0	No change
Movement pain	1/10	0/10	−1	Below MCID
Tenderness	2/10	0/10	−2	Achieved MCID

The findings demonstrated complete resolution of movement pain and tenderness after six intervention sessions. Tenderness showed a reduction of 2 points, reaching the established Minimal Clinically Important Difference (MCID) threshold for the Numeric Rating Scale.[11] Although movement pain improved from 1/10 to 0/10, the magnitude of change did not reach the MCID criterion because the initial pain intensity was relatively low. No resting pain was reported at either baseline or post-intervention assessment.

Functional facial performance was subsequently evaluated using the Ugo Fisch Scale to determine changes in facial symmetry and motor function across several facial movement domains. The following table presents detailed score comparisons between baseline and post-intervention evaluations.

Table 3. Changes in Ugo Fisch Scale Scores

Functional Domain	T1	T6	Score Improvement
Resting symmetry	14	20	+6
Forehead wrinkling	0	3	+3
Eye closure	3	7	+4
Smiling	9	21	+12
Lip pursing	9	9	0
Total score	35%	60%	+25%

The total Ugo Fisch score increased from 35% at baseline to 60% after intervention, representing a clinically meaningful improvement exceeding the predefined MCID threshold of ≥10%. The most prominent improvements were observed in resting facial symmetry, smiling ability, and eye closure. Improvement in forehead movement was also observed, although the degree of recovery remained limited. In contrast, lip-pursing ability did not demonstrate measurable improvement throughout the intervention period.

The severity of facial nerve dysfunction was further assessed using the House–Brackmann Scale to classify overall facial motor impairment before and after physiotherapy intervention. Baseline evaluation categorized the patient as grade IV (moderately severe dysfunction), characterized by absent forehead movement, incomplete eye closure, and marked facial asymmetry during voluntary facial movement. After completion of six intervention sessions, the patient improved to grade III (moderate dysfunction), indicating partial recovery of forehead movement, improved eye closure with effort, and reduced oral asymmetry. To facilitate clearer interpretation of overall clinical progression, the following text-based flowchart summarizes the patient's functional improvement throughout the intervention period.

The clinical progression during the physiotherapy program was also monitored at predefined assessment points. Changes in facial symmetry, eye closure, smiling ability, pain and tenderness, as well as objective functional outcomes were evaluated from baseline (T1) to the post intervention assessment (T6). The sequence of clinical changes and the corresponding outcome measures are summarized in Figure 2.

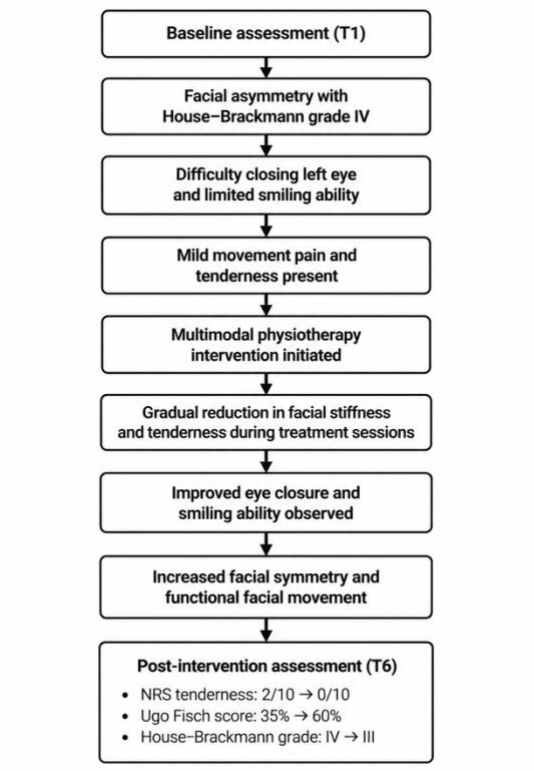

Figure 2. Clinical Progression and Functional Outcomes Following Multimodal Physiotherapy

In addition to objective findings, subjective improvement was consistently reported by the patient throughout the intervention period. By the final session, the patient stated that eye discomfort during exposure to wind had substantially decreased, facial stiffness was reduced, drinking no longer caused fluid leakage, and confidence during social interaction had improved.[14] Functional improvement was particularly perceived in the orbicularis oculi and orbicularis oris muscles, which contributed to better eye closure and oral control during daily activities.

No adverse effects or clinical deterioration were identified during the six intervention sessions. Specifically, the patient did not report skin irritation associated with infrared therapy, worsening pain following massage, or signs of excessive facial muscle fatigue. Follow-up communication conducted one week after completion of intervention (T7) indicated that facial symmetry improvement remained stable without symptom relapse or newly developed synkinesis. Patient adherence to the home-based mirror exercise program was reported to be high throughout the intervention period.

Discussion

This case report demonstrated clinically meaningful improvement in facial motor function and pain reduction following a multimodal physiotherapy intervention in a patient with subacute Bell's palsy. After six intervention sessions over three weeks, improvements were observed across all primary outcome measures, including the Numeric Rating Scale (NRS), Ugo Fisch Scale, and House–Brackmann Scale. The findings suggest that the integration of infrared therapy, massage, manual lymphatic drainage (MLD), and mirror exercise may contribute positively to functional facial recovery during the subacute phase, particularly in patients who present beyond the optimal pharmacological treatment window. Importantly, this report also addressed a gap identified in previous literature by documenting patient outcomes using an International Classification of Functioning, Disability and Health (ICF)-oriented rehabilitation framework rather than focusing exclusively on impairment-level recovery.

The reduction in pain intensity observed in this patient may be associated with the physiological effects of infrared therapy combined with soft tissue mobilization through massage. Infrared therapy has been reported to increase local tissue temperature, promote vasodilation, improve microcirculation, and produce mild analgesic effects through modulation of nociceptive activity.[6] These thermal effects may help reduce local muscular tension and discomfort surrounding the facial and retroauricular regions commonly affected in Bell's palsy. Massage intervention may have further contributed to pain reduction by improving circulation, decreasing soft tissue stiffness, and maintaining facial muscle flexibility. Similar findings have been reported in previous physiotherapy studies showing that facial massage and thermal modalities may support symptomatic relief and muscle relaxation in peripheral facial paralysis.[5] However, it should be emphasized that baseline pain intensity in this patient was relatively low; therefore, the observed reduction should be interpreted primarily as supportive clinical improvement rather than a major therapeutic endpoint.

The most clinically relevant finding in this case was the improvement in facial motor function, particularly in eye closure, resting symmetry, and smiling ability. The Ugo Fisch score increased from 35% to 60%, exceeding the predefined Minimal Clinically Important Difference threshold. Improvement in these domains is particularly important because they directly influence communication, emotional expression, oral competence, and social interaction. Facial asymmetry and impaired emotional expression are known to negatively affect self-confidence and psychosocial well-being in patients with Bell's palsy. Consequently, restoration of facial movement may provide benefits extending beyond motor recovery alone.

Mirror exercise likely played an important role in facilitating functional improvement through neuroplastic adaptation mechanisms. Visual feedback-based rehabilitation strategies are believed to stimulate cortical motor relearning and improve voluntary facial muscle activation. Martineau et al. demonstrated that mirror exercise significantly improved facial symmetry recovery compared with conventional exercise protocols and that the benefits were maintained during long-term follow-up.[5811] The present findings are consistent with those observations, particularly regarding improved smiling ability and eye closure. In this case, mirror exercise was not only performed during supervised clinical sessions but was also implemented as a structured home exercise program. High patient adherence to daily exercise may have enhanced motor relearning through repetitive practice and continuous sensory feedback. This finding highlights the importance of patient engagement and home-based rehabilitation continuity in Bell's palsy management.

Improvement from House–Brackmann grade IV to grade III also indicated clinically meaningful recovery of facial nerve function. At baseline, the patient demonstrated absent forehead movement, incomplete eye closure, and marked oral asymmetry, reflecting moderately severe facial dysfunction. Following intervention, partial recovery of forehead movement and improved eye closure were observed, suggesting improved neuromuscular control and facial coordination. Nevertheless, recovery remained incomplete, particularly in movements involving the frontalis muscle and lip pursing function. This slower recovery pattern may be associated with prolonged denervation or delayed rehabilitation initiation because the patient began physiotherapy approximately 10 weeks after symptom onset. Previous literature has shown that delayed intervention may reduce the rate and magnitude of functional recovery compared with treatment initiated during the acute stage.[3]

Manual lymphatic drainage was incorporated into the intervention protocol to address potential perivascular tissue congestion surrounding the facial nerve. Although direct measurement of edema reduction was not performed, the intervention was intended to facilitate lymphatic circulation and minimize residual tissue swelling that could contribute to neural compression. Theoretical support for this mechanism exists within rehabilitation literature; however, direct evidence regarding MLD specifically for Bell's palsy remains limited.[15] As a result, the contribution of MLD to the observed clinical improvement cannot be isolated with certainty in this case. This issue reflects a broader limitation within Bell's palsy rehabilitation research, where multimodal interventions often make it difficult to determine the independent effect of each therapeutic component.

The present findings should also be interpreted in the context of Bell's palsy's natural history. Approximately 70–85% of patients experience spontaneous recovery within the first three months after onset, even without intensive rehabilitation intervention.[43] This spontaneous recovery pattern represents a major confounding factor in nearly all non-controlled Bell's palsy studies. Although the patient in this report was already in the subacute phase when physiotherapy began, natural neural recovery may still have contributed to functional improvement during the intervention period. Therefore, the observed outcomes cannot be attributed exclusively to multimodal physiotherapy. Nevertheless, the magnitude of improvement across multiple functional domains, combined with high adherence to the rehabilitation program, suggests that physiotherapy may have supported and potentially accelerated functional recovery.

Another important methodological consideration involves the absence of objective electrophysiological assessment such as electromyography (EMG) or electroneurography (ENoG). Without these examinations, the degree of facial nerve degeneration and regeneration could not be quantified physiologically. Clinical interpretation therefore relied primarily on observational functional scales and patient-reported outcomes. Furthermore, because the same physiotherapist conducted both intervention and evaluation

procedures, observer bias cannot be fully excluded.[16] Although consistent assessment procedures were maintained throughout the study and clinically validated outcome measures were used, blinded assessment was not available. These limitations should be acknowledged when interpreting the clinical significance of the findings.

Despite these limitations, this case report provides several clinically relevant contributions. First, it demonstrates the feasibility of implementing a structured multimodal physiotherapy protocol during the subacute phase of Bell's palsy. Second, the report emphasizes the value of combining supervised treatment with a structured home exercise program to support rehabilitation continuity. Third, the use of an ICF-oriented framework allowed evaluation not only of facial impairment but also of activity limitations and participation-related outcomes, including confidence during social interaction and oral functional ability. This broader perspective is particularly important because successful rehabilitation in Bell's palsy should not be evaluated solely on facial symmetry restoration, but also on improvements in daily function and psychosocial participation.[17]

Future studies should employ randomized controlled trial designs with larger sample sizes and objective neurophysiological assessment tools to clarify the effectiveness of multimodal physiotherapy protocols in Bell's palsy rehabilitation. Comparative studies evaluating individual therapeutic components would also be valuable in determining which modalities contribute most substantially to functional recovery. In addition, longer follow-up periods are necessary to evaluate the persistence of functional improvement and monitor potential late complications such as synkinesis or facial contracture.

Conclusion

This case report demonstrated that a multimodal physiotherapy program consisting of infrared therapy, massage, manual lymphatic drainage, and mirror exercise was associated with clinically meaningful improvement in facial motor function and pain reduction in a patient with subacute Bell's palsy. After six intervention sessions over three weeks, improvement was observed across all primary outcome measures, including increased Ugo Fisch scores, reduced House–Brackmann severity grade, and complete resolution of movement-related pain and tenderness.

The most prominent functional improvements were observed in eye closure, facial symmetry at rest, and smiling ability, which contributed to better oral function, daily activity performance, and social confidence. These findings suggest that a structured multimodal physiotherapy approach combined with a consistent home exercise program may support functional recovery in patients presenting beyond the optimal pharmacological treatment period.

However, because this study involved a single patient and Bell's palsy has a high spontaneous recovery rate, the findings should be interpreted cautiously. Further studies using randomized controlled trial designs, larger sample sizes, and objective neurophysiological assessments are required to confirm the effectiveness of multimodal physiotherapy interventions in subacute and chronic Bell's palsy rehabilitation.

Author Contribution

Dela Putri Auliya: Conceptualization, Data curation, Investigation, Intervention implementation, Writing—original draft.
Umi Budi Rahayu: Conceptualization, Methodology, Formal analysis, Supervision, Writing—review and editing.
Dyah Wahyu Utami: Methodology, Clinical supervision, Visualization, Writing—review and editing.
All authors have read and approved the final version of the manuscript.

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Conflict of Interest Statement

The authors declare no conflict of interest related to this publication.

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Ethics Statement

All procedures performed in this case report were conducted according to the ethical principles of the Declaration of Helsinki. Based on the internal policy of Soerojo Hospital Magelang, retrospective non-invasive single-case reports are exempt from formal institutional ethical review. Written informed consent was obtained from the patient for participation and publication of anonymized clinical information.

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