



**Beyond Pharmacology in Chronic Headache Care:
Physiotherapy, Behavioral, and Rehabilitative Approaches
A White Paper from the PhysioHead Collaborative Group**

Target audiences: clinicians, researchers, policymakers, educators

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Executive Summary

- The unmet needs in chronic headache management
- Why pharmacology alone is insufficient
- The growing role of physiotherapy and behavioral approaches
- Key messages and actionable conclusions

1. Introduction: Why This White Paper Now?

- Global burden of chronic headache disorders
- Real-world clinical practice vs guideline gaps
- Increasing patient demand for non-pharmacological care
- Purpose and scope of the White Paper

2. Chronic Headache Disorders: Clinical Context

- Chronic migraine
- Chronic tension-type headache
- Cervicogenic and overlapping headache syndromes
- Comorbidities influencing rehabilitation outcomes

3. Rationale for Non-Pharmacological and Rehabilitative Care

- Limitations of long-term pharmacological strategies
- Patient preference, adherence, and safety considerations
- Complementarity with preventive and acute medications
- Focusing on special interest groups, including children, the elderly, pregnant women, breastfeeding mothers, etc.

4. Physiotherapy Approaches in Chronic Headache

- Posture, movement, and cervical biomechanics
- Manual therapy and soft tissue interventions

- Exercise-based rehabilitation
- Evidence summary and clinical pearls

5. Behavioral and Psychological Interventions

- Cognitive Behavioral Therapy (CBT)
- Acceptance and Commitment Therapy (ACT)
- Schema Therapy
- EMDR and other Therapies
- Mindfulness-based interventions
- Stress, anxiety, depression, and pain coping

6. Mechanistic Perspectives

- Central sensitization
- Trigeminocervical and musculoskeletal pathways
- Neuroplasticity and rehabilitation
- Brain–body interaction models

7. Digital, Tele-Rehabilitation, and Hybrid Models

- Digital physiotherapy and rehabilitation platforms
- Remote behavioral interventions
- Hybrid care pathways
- Equity, access, and scalability

8. Integrating Non-Pharmacological Care into Headache Pathways

- Multidisciplinary headache clinics
- Stepwise and personalized care models
- Role of allied health professionals
- Coordination with pharmacological treatment

9. Patient-Centered Outcomes and Real-World Evidence

- Functional outcomes and quality of life
- Adherence and satisfaction
- Cultural and regional considerations
- Health economics perspective (optional subsection)

10. Research Gaps and Future Directions

- Methodological limitations
- Outcome standardization
- Mechanistic research priorities
- Implementation science needs

11. Consensus Statements and Key Recommendations

- What clinicians should do now
- What researchers should prioritize
- What health systems should support

12. Call to Action

- For clinicians
- For researchers
- For journals and guideline bodies
- For professional societies

Appendices

- A. Glossary of rehabilitative terms
- B. Summary tables of interventions
- C. Proposed minimum outcome set
- D. List of contributing PhysioHead members

PROPOSED FIGURES

Figure 1.

Positioning Physiotherapy and Behavioral Interventions in Chronic Headache Care: Walking Together With Pharmacology

Concept:

This figure illustrates the integrated role of pharmacological, physiotherapy, and behavioral interventions within comprehensive chronic headache management.

Content structure:

- Central element: *Chronic Headache Care*
- Three interconnected domains:
 - Pharmacological treatments



- Physiotherapy and rehabilitative interventions
- Behavioral and psychological approaches
- Bidirectional arrows highlighting synergy rather than replacement

Design notes:

- Circular or concentric layout
- Minimal text, clear iconography
- Balanced visual weight across domains

Figure 2.

Mechanistic Pathways Underlying the Effects of Physiotherapy and Rehabilitation and Behavioral Interventions in Chronic Headache Disorders

Concept:

This figure summarizes the biological and functional mechanisms through which non-pharmacological interventions influence headache outcomes.

Content structure:

- Inputs: musculoskeletal dysfunction, posture, stress, maladaptive behaviors
- Intermediate mechanisms:
 - Central sensitization
 - Trigeminocervical complex modulation
 - Neuroplasticity and pain processing networks
- Outcomes: pain reduction, functional improvement, quality of life

Design notes:

- Flow diagram (left-to-right or top-down)
- Distinct color coding for peripheral vs central mechanisms

Figure 3.

A Multidisciplinary Model for Non-Pharmacological Management of Chronic Headache

Concept:

This figure presents a patient-centered, team-based approach to chronic headache care.

**Content structure:**

- Patient positioned at the center
- Surrounding contributors:
 - Neurology
 - Physiotherapy and Rehabilitation
 - Psychology / behavioral health
 - Digital and tele-rehabilitation support

Design notes:

- Hub-and-spoke or network model
- Clear role attribution without overcrowding

Figure 4.**From Evidence to Practice: Integrating Rehabilitative Approaches into Chronic Headache Care Pathways****Concept:**

This figure illustrates the translation of evidence into clinical practice.

Content structure:

- Sequential stages:
 - Scientific evidence
 - Clinical guidelines
 - Multidisciplinary care pathways
 - Patient-centered outcomes
- Visibility of non-pharmacological interventions at each stage

Design notes:

- Stepwise or pathway-based layout
- Suitable for guideline-oriented readers

Figure 5. (Optional / Vision Figure)**Future Directions in Non-Pharmacological and Rehabilitative Headache Care**



Concept:

This figure highlights emerging and future trends.

Content structure:

- Digital health and tele-rehabilitation
- Hybrid care models
- Personalized rehabilitation strategies
- Global accessibility and equity

Design notes:

- Forward-looking arrows or horizon metaphor
- Lighter, optimistic color palette

PROPOSED TABLES

Table 1.

Overview of Non-Pharmacological Interventions in Chronic Headache Disorders

| |
|---|
| Intervention type Target population Level of evidence Key clinical outcomes |
|---|

Table 2.

Physiotherapy and Rehabilitation-Based Approaches in Chronic Headache Management

| |
|---|
| Intervention Headache type Proposed mechanism Clinical considerations |
|---|

Table 3.

Behavioral and Psychological Interventions in Headache Care

| |
|---|
| Approach Target domain Mode of delivery Evidence highlights |
|---|

Table 4.

Mechanistic Links Between Rehabilitative Interventions and Headache Pathophysiology

| |
|---|
| Intervention Biological pathway Central vs peripheral effect Clinical implication |
|---|

Table 5.

Integration of Non-Pharmacological Strategies Across the Headache Care Continuum

| |
|--|
| Care stage Pharmacological role Non-pharmacological role Multidisciplinary input |
|--|



Table 6. (Consensus Table)

**Key Recommendations for Physiotherapy and Rehabilitation and Behavioral Interventions
in Chronic Headache Care**

| Recommendation | Target audience | Strength of consensus |
|----------------|-----------------|-----------------------|
|----------------|-----------------|-----------------------|