

Effectiveness of CIMT/mCIMT for Improvement in UE Motor Function in Adults Experiencing Hemiplegia after a Traumatic Brain Injury

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Background & Rationale

- **Traumatic Brain Injuries (TBI)** are prevalent among the population, more than 500,000 people are hospitalized each year for this condition (Shaw et al., 2005)
- The golden intervention standard for **Cerebrovascular Accident (CVA)** is **Constraint-Induced Movement Therapy (CIMT)** (Telda et al, 2002)
- The symptoms of CVA and TBI can present similarly i.e., hemiplegia
- Can CIMT be an appropriate intervention for acute care scenarios of TBI clients experiencing impaired motor control due to hemiplegia?

PICO Question

Does CIMT or mCIMT improve upper extremity motor function in adults who experienced hemiplegia after a TBI?

Search Methodology

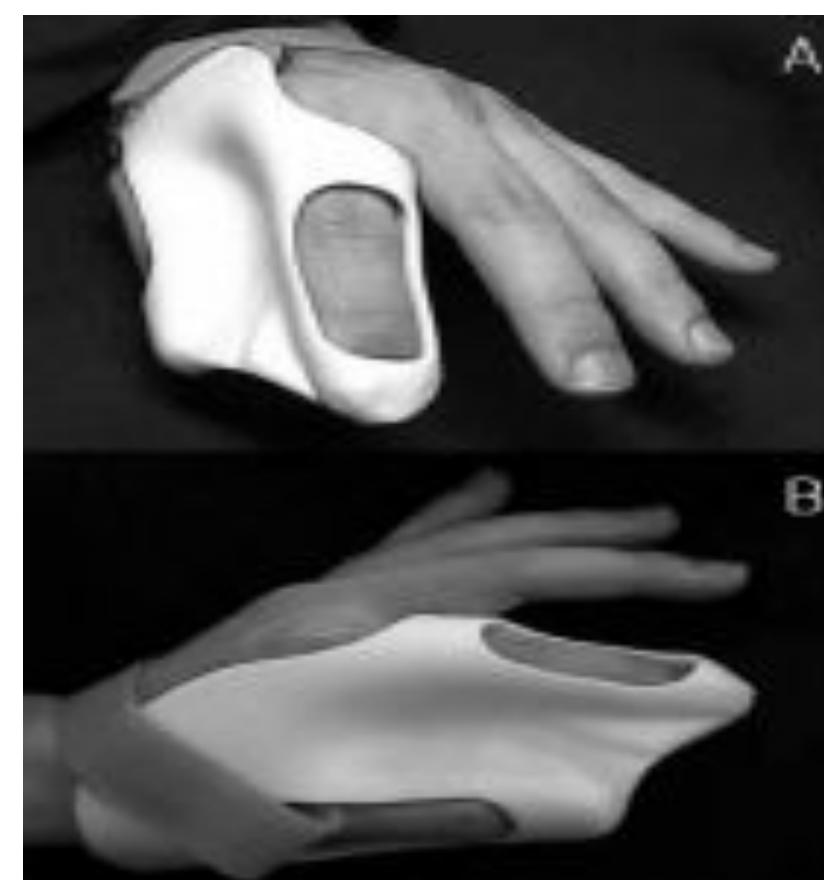
Databases Searched:
PubMed, CINAHL, Embase, Google Scholar, AJOT

Inclusion Criteria:

- CIMT/ mCIMT
- TBI with hemiplegia
- Adults ages 18+

Exclusion Criteria:

- Ages 17 years or younger



Main Findings & Limitations

Main Findings

3 articles

Level I: RCT & Systematic Review

- mCIMT effective for improving UE function in hemiplegia
- mCIMT may be more effective than CIMT
- Improvement of UE motor activity performance with CIMT following TBI

4 articles

Level III: Quasi-Experimental

- Significant improvement in all outcome measures
- Case-by-case restriction period
- Improved satisfaction post-intervention; decline at follow-up

4 articles

Level IV: Descriptive Studies

- CIMT & mCIMT improved UE function
- Adherence is critical

Limitations

- Research is limited for adult populations
- Current literature has small sample sizes
- Limited generalizability
- Time restraint

Clinical Bottom Line

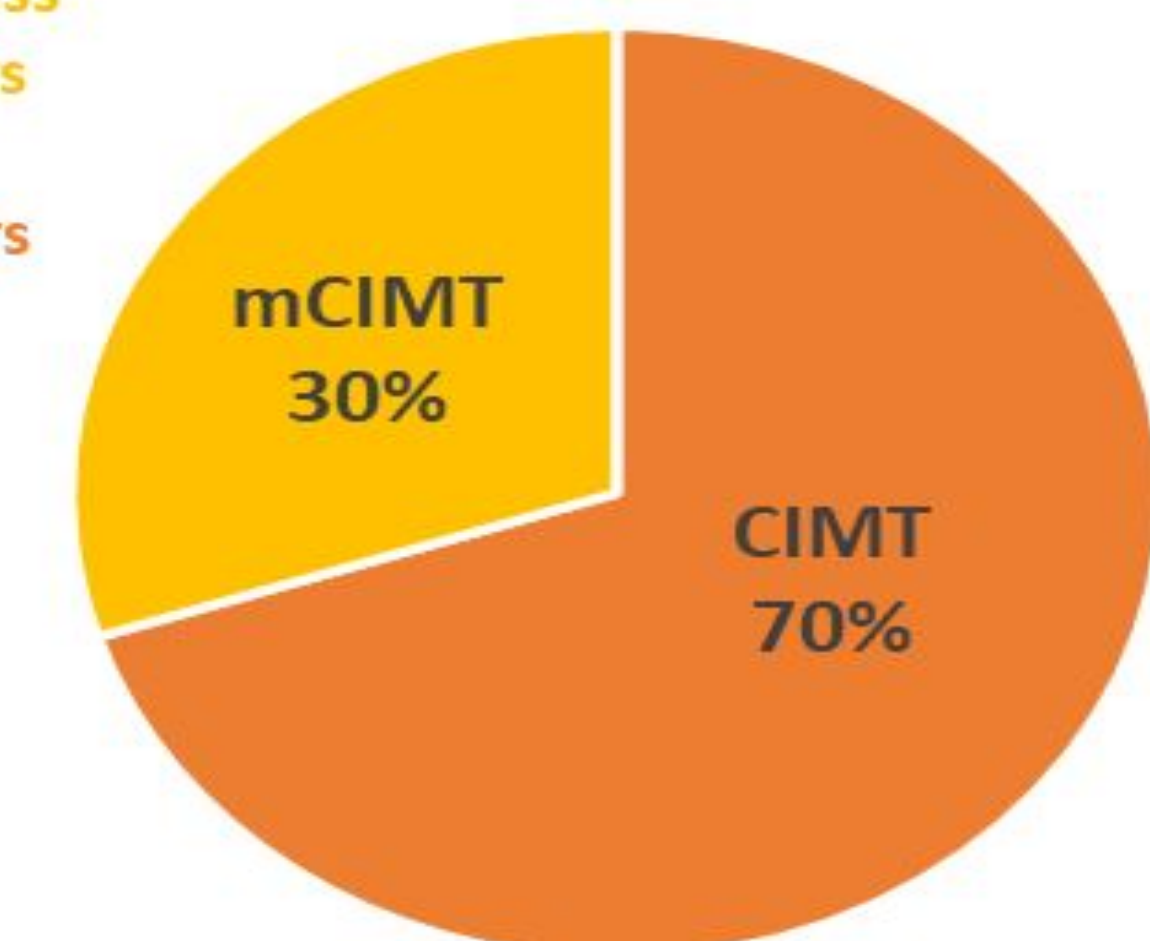
Research indicates that **CIMT/ mCIMT** is an **effective** intervention for improving **UE motor function** in clients with a **traumatic brain injury**.

Recommendations for Implementation

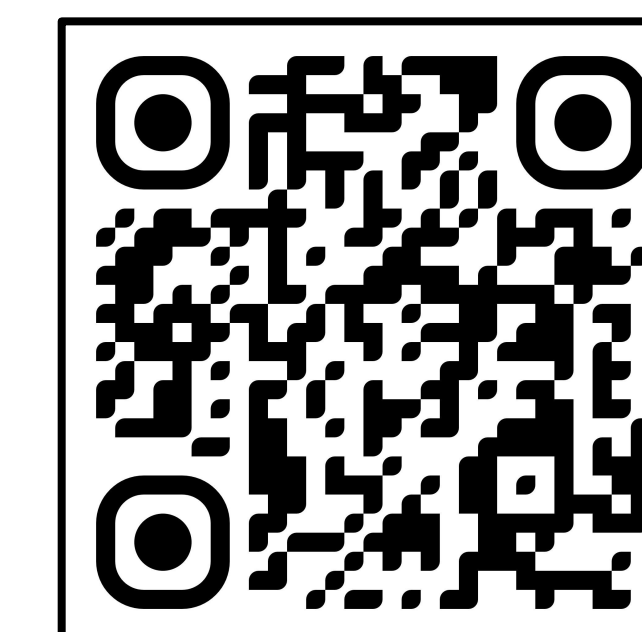
- **Early intervention** post-TBI yields better outcomes
- **Client compliance** correlates with positive outcomes
- **Longer follow-up periods** needed in future research

Intervention Summary

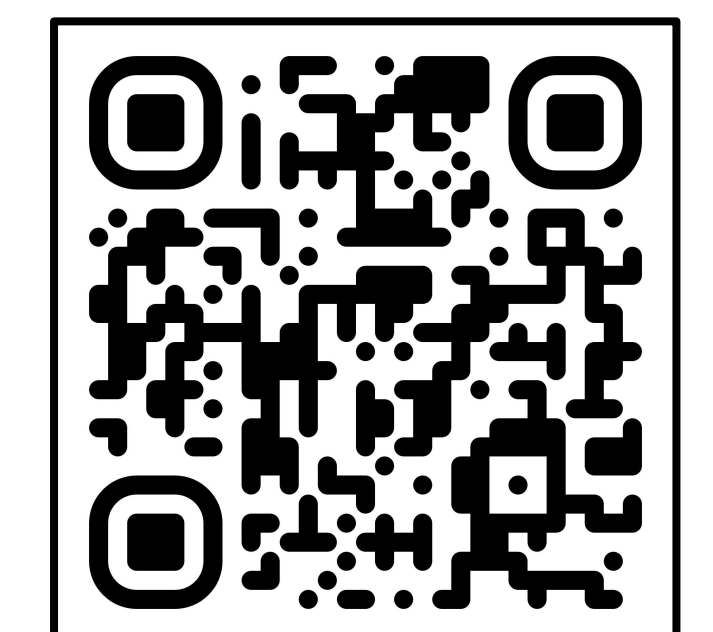
Key:
mCIMT is less than 6 hours
CIMT is at least 6 hours



References



Search Results



PRISMA Form