

Table S1: The search strategy of the systematic review.

The search strategy was developed according to PRISMA-S guidelines and adapted for each database interface in consultation with an experienced health sciences librarian. Controlled vocabulary terms (MeSH, Emtree, and CINAHL Headings) were combined with free-text keywords. The specific timelines, restrictions/limits and field tags of the search were as follows:

Search coverage window: January 1, 1985 to May 15, 2025

Exact search run date: May 15, 2025

Language restriction: English

Additional limits: Studies including a control group

MEDLINE

Field tags: MeSH Terms and Title/Abstract

Concept 1 – Population

("Infant"[Mesh] OR "Infant, Premature"[Mesh] OR "Cerebral Palsy"[Mesh]
OR infant*[tiab] OR premature*[tiab] OR "cerebral palsy"[tiab])

AND

Concept 2 – Intervention

("Early Intervention (Education)"[Mesh] OR "Physical Therapy Modalities"[Mesh]
OR "Rehabilitation"[Mesh] OR "Exercise"[Mesh] OR "Motor Skills"[Mesh])

OR "early intervention"[tiab] OR "physical therapy"[tiab]
OR physiotherapy[tiab] OR rehabilitation[tiab]
OR exercise[tiab] OR "motor training"[tiab])

AND

Concept 3 - Outcomes

("Child Development"[Mesh] OR "Infant Development"[Mesh]
OR "Developmental Disabilities"[Mesh] OR "Psychomotor Performance"[Mesh]
OR "Movement Disorders"[Mesh] OR "Motor Skills Disorders"[Mesh]
OR "child development"[tiab] OR "infant development"[tiab]
OR "developmental disabilities"[tiab] OR "motor performance"[tiab]
OR "motor disorders"[tiab] OR "movement disorders"[tiab]
OR "motor skill disorders"[tiab] OR "motor development"[tiab])

NOT

Concept 4 - Exclusion Criteria

("Genetics"[Mesh] OR genetics[tiab]
OR "Chest Physiotherapy"[Mesh]
OR cardiac[tiab]
OR "Intensive Care Units, Neonatal"[Mesh])

Web of Science

Field tags: Topic (TS)

TS=("infant" OR "premature" OR "cerebral palsy")

AND

TS=("early intervention" OR "physical therapy" OR "physiotherapy"
OR "rehabilitation" OR "exercise" OR "motor training")

AND

TS=("child development" OR "infant development"
OR "developmental disabilities" OR "motor performance"
OR "motor disorders" OR "movement disorders"
OR "motor skill disorders" OR "motor development")

NOT

TS=("genetics" OR "chest physiotherapy"
OR "cardiac" OR "neonatal intensive care unit")

Cochrane Library (CENTRAL)

Field tags: MeSH descriptors and Title/Abstract/Keywords

([mh "Infant"] OR [mh "Infant, Premature"] OR [mh "Cerebral Palsy"]
OR (preterm OR prematur*),ab,kw)

AND

([mh "Early Intervention"] OR [mh "Physical Therapy"]
OR [mh "Rehabilitation"] OR [mh "Exercise"]
OR "motor training",ab,kw)

AND

([mh "Child Development"] OR [mh "Infant Development"]
OR [mh "Developmental Disabilities"]
OR [mh "Psychomotor Performance"]
OR [mh "Movement Disorders"]
OR [mh "Motor Skills Disorders"]
OR "motor development",ab,kw)

NOT

([mh "Genetics"] OR [mh "Chest Physiotherapy"]
OR cardiac,ab,kw
OR [mh "Intensive Care Units, Neonatal"])

Scopus

Field tags: TITLE-ABS-KEY

TITLE-ABS-KEY("infant" OR "premature" OR "cerebral palsy")

AND

TITLE-ABS-KEY("early intervention" OR "physical therapy"
OR "physiotherapy" OR "rehabilitation"
OR "exercise" OR "motor training")

AND

TITLE-ABS-KEY("child development" OR "infant development"
OR "developmental disabilities" OR "motor performance"
OR "motor disorders" OR "movement disorders"
OR "motor skill disorders" OR "motor development")

NOT

TITLE-ABS-KEY("genetics" OR "chest physiotherapy"
OR "cardiac" OR "neonatal intensive care unit")

PEDro Database

* Filters/limits: clinical trial, randomized controlled trial, paediatric population (when available).

PEDro does not support complex Boolean syntax. Therefore, simplified keyword searching with platform filters was used.

"early intervention"	"child development"	"motor skill disorders"
"physical therapy"	"infant development"	"motor development"
"physiotherapy"	"developmental disabilities"	"infant"

"rehabilitation"	"motor performance "	"premature"
"exercise"	"motor disorders"	"cerebral palsy"
"motor training"	"movement disorders"	

PUBMED

Field tags: MeSH Terms and Title/Abstract

Concept 1 – Population

("Infant"[Mesh] OR "Infant, Premature"[Mesh] OR "Cerebral Palsy"[Mesh]
OR infant*[tiab] OR premature*[tiab] OR "cerebral palsy"[tiab])

AND

Concept 2 – Intervention

("Early Intervention (Education)"[Mesh] OR "Physical Therapy Modalities"[Mesh]
OR "Rehabilitation"[Mesh] OR "Exercise"[Mesh] OR "Motor Skills"[Mesh]
OR "early intervention"[tiab] OR "physical therapy"[tiab]
OR physiotherapy[tiab] OR rehabilitation[tiab]
OR exercise[tiab] OR "motor training"[tiab])

AND

Concept 3 – Outcomes

("Child Development"[Mesh] OR "Infant Development"[Mesh]
OR "Developmental Disabilities"[Mesh] OR "Psychomotor Performance"[Mesh]
OR "Movement Disorders"[Mesh] OR "Motor Skills Disorders"[Mesh]
OR "child development"[tiab] OR "infant development"[tiab]
OR "developmental disabilities"[tiab] OR "motor performance"[tiab]
OR "motor disorders"[tiab] OR "movement disorders"[tiab]
OR "motor skill disorders"[tiab] OR "motor development"[tiab])

NOT

Concept 4 – Exclusion Criteria

("Genetics"[Mesh] OR genetics[tiab]
OR "Chest Physiotherapy"[Mesh]
OR cardiac[tiab]
OR "Intensive Care Units, Neonatal"[Mesh]
OR "neonatal intensive care unit"[tiab])

EMBASE

Field tags: Emtree Terms and Title/Abstract

('infant'/exp OR 'premature infant'/exp OR 'cerebral palsy'/exp
OR infant*,ab OR premature*,ab OR 'cerebral palsy',ab)

AND

('early intervention'/exp OR 'physiotherapy'/exp
OR 'rehabilitation'/exp OR 'exercise'/exp OR 'motor skill'/exp
OR 'early intervention',ab OR 'physical therapy',ab
OR physiotherapy,ab OR rehabilitation,ab
OR exercise,ab OR 'motor training',ab)

AND

('child development'/exp OR 'infant development'/exp
OR 'developmental disability'/exp OR 'psychomotor performance'/exp
OR 'movement disorder'/exp OR 'motor dysfunction'/exp
OR 'child development',ab OR 'infant development',ab
OR 'developmental disabilities',ab OR 'motor performance',ab
OR 'motor disorders',ab OR 'movement disorders',ab
OR 'motor skill disorders',ab OR 'motor development',ab)

NOT

('genetics'/exp OR genetics,ab
OR 'chest physiotherapy'/exp
OR cardiac,ab
OR 'neonatal intensive care unit'/exp)

CINAHL

Field tags: CINAHL Headings and Title/Abstract

(MH "Infant+" OR MH "Infant, Premature+" OR MH "Cerebral Palsy+"
OR TI infant* OR AB infant*
OR TI premature* OR AB premature*
OR TI "cerebral palsy" OR AB "cerebral palsy")

AND

(MH "Early Intervention+" OR MH "Physical Therapy+"
OR MH "Rehabilitation+" OR MH "Exercise+"
OR MH "Motor Skills+"
OR TI "early intervention" OR AB "early intervention"
OR TI "physical therapy" OR AB "physical therapy"
OR TI physiotherapy OR AB physiotherapy
OR TI rehabilitation OR AB rehabilitation
OR TI exercise OR AB exercise
OR TI "motor training" OR AB "motor training")

AND

(MH "Child Development+" OR MH "Infant Development+"
OR MH "Developmental Disabilities+"
OR MH "Psychomotor Performance+"
OR MH "Movement Disorders+"
OR MH "Motor Skills Disorders+"
OR TI "motor development" OR AB "motor development")

NOT

(MH "Genetics+" OR TI genetics OR AB genetics
OR MH "Chest Physiotherapy+"
OR TI cardiac OR AB cardiac
OR MH "Neonatal Intensive Care Units+")

Wiley Online Library

("Infant" OR "Premature" OR "Cerebral Palsy" OR infant* OR premature* OR "cerebral palsy")

AND

("Early intervention" OR "Physical therapy" OR "Physiotherapy"
OR "Rehabilitation" OR "Exercise" OR "Motor training")

AND

("Child development" OR "Infant development"
OR "Developmental disabilities" OR "Motor performance"
OR "Motor disorders" OR "Movement disorders"
OR "Motor skill disorders" OR "Motor development")

NOT

("Genetics" OR "Chest physiotherapy"
OR "Cardiac" OR "Neonatal intensive care unit")