

Personalised physiotherapy treatment for young people experiencing pain

Submission date 01/07/2024	Recruitment status Recruiting	<input checked="" type="checkbox"/> Prospectively registered <input type="checkbox"/> Protocol
Registration date 04/07/2024	Overall study status Ongoing	<input type="checkbox"/> Statistical analysis plan <input type="checkbox"/> Results
Last Edited 10/07/2025	Condition category Musculoskeletal Diseases	<input type="checkbox"/> Individual participant data <input checked="" type="checkbox"/> Record updated in last year

Plain English summary of protocol

Background and study aims
Muscle and joint pains, sprains, and broken bones are common in children. While most recover, some young people continue to experience pain into adulthood. Long-term pain can affect friendships, school attendance, and mental health, and is a leading cause of disability worldwide. Physiotherapy is recommended for muscle and joint pains, but we still need to learn more about how it can help. Past research showed that how the treatment is given matters to young people and affects recovery. The World Health Organization reported that young people experiencing pain, keep saying they want physiotherapy treatment to be personalised yet, we do not know the best way to make this happen.
This research project aims to develop a training package for physiotherapists that will guide treatment to be personalised (this is an intervention).

Who can participate?
Young people aged 14-18 years old, parents, and physiotherapists, who have had experience of physiotherapy treatment for pain, can participate.

What does the study involve?
There are different ways to design an intervention. This study is using a 'person-based approach', this means the intervention is designed and developed by people who have experience of physiotherapy for muscle and joint pain (patients, parents, and physiotherapists). Each person will be asked to share their opinion based on their own experience during four different research stages in order to produce an effective, personalised intervention design:

In Stage 1, 15 young people will participate in hands on workshops. They will discuss physiotherapy sessions and select engaging activities for the intervention. Activities used in the workshop have been chosen based on input from 112 young people aged 2-21 years old at a public event.

The draft intervention will be tested in Stages 2 and 3 with 15 young people and 15 parents (Stage 2) and 15 physiotherapists (Stage 3) through interviews. Each person will provide feedback on the intervention and recommend any changes. Interviews will continue until no more changes are required.

In Stage 4 the finalised intervention, including a plan for physiotherapy sessions, and a training package for physios, will be described. The intervention will be ready for a future study comparing physiotherapy treatment with and without the training.

Young people and parents will receive information about the study during their physiotherapy appointment. The physiotherapists will learn about the study through national networks and a social media advert. Those interested in taking part can contact the researcher via email. The researcher will choose as diverse a group as possible in age, sex, ethnicity, location of pain (young people) and length of experience (physiotherapists).

What are the possible benefits and risks of participating?

Participating in the study is not expected to directly benefit individuals. However, it aims to improve physiotherapy services for others. The risks are minimal as researchers will not be asking sensitive questions that could cause distress. To prevent worsening pain from sitting still during the one-hour interview, movement will be encouraged.

Where is the study run from?

The study is being run by the University of Southampton, England, UK.

When is the study starting and how long is it expected to run for?

The study is expected to run for just over 1-year. The first workshop with young people is planned for the 21st August 2024 (Stage 1) and the last interview with a physiotherapist (Stage 3) will take place by the 30th of September 2025.

Who is funding the study?

The Medical Research Foundation and Versus Arthritis (UK) are joint funders of the study.

Who is the main contact?

Dr Rhiannon Joslin, email r.joslin@soton.ac.uk.

Contact information

Type(s)

Public, Scientific, Principal Investigator

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Additional identifiers

EudraCT/CTIS number

Nil known

IRAS number

339287

ClinicalTrials.gov number

Nil known

Secondary identifying numbers

IRAS 339287, Sponsor number 91410

Study information

Scientific Title

Person-centred child and adolescent physiotherapy for musculoskeletal pain: the PCAP-MSK study

Acronym

PCAP-MSK

Study objectives

The hypothesis is that personalising physiotherapy treatment will allow young people to feel in control, reach their goals and recover, stopping pain and disability as an adult. The best way to personalise physiotherapy is unknown. Although creative activities like drawing a timeline were shown to help in research studies, using them in physiotherapy sessions is a new idea. This led to the research question: which creative activities engage young people and are practical to use by physiotherapists, to personalise treatment for young people affected by musculoskeletal pain? The aim of the current research is to develop an intervention that will outline a procedure and provide a training package for physiotherapists to deliver person-centred treatment for children and adolescents experiencing musculoskeletal pain.

Ethics approval required

Ethics approval required

Ethics approval(s)

Approved 01/05/2024, South Central - Berkshire Research Ethics Committee (Health Research Authority, 2 Redman Place, Stratford, E20 1JQ, United Kingdom; +44 (0)207 104 8178; berkshire.rec@hra.nhs.uk), ref: 24/SC/0108

Study design

Development of an intervention (training package for physiotherapists) guided by the person-based approach to intervention development (qualitative research design) and complex-intervention development framework

Primary study design

Other

Secondary study design

Study setting(s)

Hospital, University/medical school/dental school

Study type(s)

Treatment

Participant information sheet

Not applicable in web format, please use contact details to request a participant information sheet.

Health condition(s) or problem(s) studied

Musculoskeletal pain

Interventions

The intervention development will be guided by the person-based approach (Yardley et al., 2015) and complex-intervention development framework (Skivington et al., 2021). There are four stages of the intervention development that involve different participants (young people, parents and physiotherapists) with staged recruitment.

Stage 1 involves two face-to-face 2-hour interactive workshops with 10-15 young people. Young people will design the draft intervention and then complete email follow-up (1 hour) to check and/or edit a summary of the workshop results. Young people can choose to only take part in Stage 1 and for these participants the total duration including follow-up is estimated to be less than 4 months.

Stage 2 involves two face-to-face 1-hour interviews with 10-15 young people and 10-15 parents. Young people will be interviewed with their parent to replicate clinical practice and will test the draft intervention. They will then complete email follow-up (1 hour) to check and/or edit a summary of the interview. The workshops (Stage 1) and interviews (Stage 2) will take place at the University of Southampton, travel will be reimbursed. For young people and parents only involved in Stage 2, the total duration of participation including follow-up is estimated to be less than 4 months. If young people choose to take part in Stage 1 and 2, the total duration of participation could be up to 11 months.

Stage 3 involves two 1-hour interviews with 10-15 physiotherapists, and email follow-up (1 hour) to check and/or edit a summary of the interview. Physiotherapists can be interviewed via Microsoft Teams or face-to-face at the University. The total duration of participation including follow-up is estimated to be less than 4 months

Interviews in Stage 2 and 3 will use think-aloud techniques where each person comments on the intervention and suggests changes. Interviews will continue until no more changes to the draft intervention are required.

Intervention Type

Behavioural

Primary outcome measure

The primary data being collected is qualitative data that will include workshop and interview transcripts, drawings, written word and typed text. Qualitative data is being collected at three

time points with different participants: 1) young people at baseline; 2) young people and parents at 4-7 months and; 3) physiotherapists at 10-12 months. Reflexive thematic analysis (Braun and Clarke, 2016) will be used to establish themes from the qualitative workshop and interviews.

Secondary outcome measures

To identify, from the viewpoint of young people, parents and physiotherapists (Stage 2 and 3), which outcomes (changes due to treatment) would best capture the success of the intervention. This will inform the choice of primary and secondary outcome measures for a future pragmatic trial comparing physiotherapy with and without the training.

Overall study start date

08/01/2024

Completion date

30/09/2025

Eligibility

Key inclusion criteria

1. Young people aged between 14 and 18 years old who have received physiotherapy within National Health Service (NHS) outpatient services for treatment of musculoskeletal pain (pain over muscles, ligaments, bones and joints) prior to discharge from hospital services (no medical management required). This would include those who have completed medical management post injury (ligament sprains, broken bones, dislocation) or those who have pain despite no underlying disease or injury (anterior knee pain, non-specific lower back pain) or those with pain due to growth related changes (Osgood-Schlatter disease).
2. Parents or guardians of young people who fulfil the above criteria.
3. Physiotherapists who treat children and adolescents in NHS outpatient services for musculoskeletal pain prior to discharge from hospital (no medical management required)

Participant type(s)

Patient, Health professional, Carer

Age group

Child

Lower age limit

14 Years

Upper age limit

18 Years

Sex

Both

Target number of participants

15 young people (Stage 1), 15 young people and 15 parents (Stage 2), and 15 physiotherapists (Stage 3).

Key exclusion criteria

1. Young people who are under the age of 14, 19-years-old, or older. Young people who experience musculoskeletal pain that still require medical management and discharge from hospital services is not an expectation. This would include musculoskeletal pain that is secondary to: a disease process e.g., Juvenile Idiopathic arthritis; a pre-existing long-term condition e.g., cerebral palsy; or an ongoing injury waiting medical management e.g. torn anterior cruciate ligament.

2. Parents of young people who fulfil these criteria.

3. Physiotherapists who treat adults with musculoskeletal pain and/or treat children and adolescents within the private sector.

Those who do not provide informed consent and those unable to communicate in English without assistance and/or express their views either verbally or in a written format due to significant learning difficulties, the use of alcohol or illegal substances or acute mental or physical ill health.

Lastly, in the unlikely event a child or family member had previously received physiotherapy treatment from the lead researcher they will be excluded.

Date of first enrolment

21/08/2024

Date of final enrolment

30/09/2025

Locations

Countries of recruitment

England

United Kingdom

Study participating centre

University of Southampton

University Road

Southampton

United Kingdom

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Sponsor information

Organisation

University of Southampton

Sponsor details

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Sponsor type

University/education

Website

<https://www.southampton.ac.uk/>

ROR

<https://ror.org/01ryk1543>

Funder(s)

Funder type

Charity

Funder Name

Medical Research Foundation

Funder Name

Versus Arthritis

Results and Publications

Publication and dissemination plan

The results of the study will be disseminated to the young people, parents and physiotherapists who took part using their suggestions on how to present this information. The findings from the 4 Stages will also be disseminated within peer reviewed journals. In addition, findings will be disseminated through international conferences such as World Physiotherapy Conference and International Symposium for Paediatric Pain. Findings will also be presented at national conference and to clinical rheumatology, physiotherapy, and pain networks exploring clinical application and future collaboration.

Intention to publish date

30/09/2026

Individual participant data (IPD) sharing plan

The qualitative datasets (transcripts and drawings) are not expected to be made publicly available because the participant consent forms do not include permission to share the data in this way. The participant consent forms do include permission for secondary analysis of the anonymised data sets under the supervision of Dr Rhiannon Joslin.

IPD sharing plan summary
Not expected to be made available

Study outputs

Output type	Details	Date created	Date added	Peer reviewed?	Patient-facing?
Other publications		09/07/2025	10/07/2025	Yes	No