

**Grant title:** “One and the same?”: An in-depth investigation into the complexities of pain experiences of children and young people with inflammatory and non-inflammatory conditions

**Award holders:** Dr Lis Cordingley, Dr Rebecca Lee, Professor Wendy Thomson, University of Manchester

This report describes the first six-months progress of the 3-year studentship (start date: 01/10/2020).

### **Background and aims of project:**

Musculoskeletal pain affects approximately 40% of children and young people, although causes vary. There is some evidence suggesting that pain is managed differently depending upon whether children and young people are categorised as either having inflammatory or non-inflammatory conditions. For example, those with inflammatory conditions may be more likely to receive pharmacologically focused treatment and those with non-inflammatory pain are predominantly provided with psychological management techniques. Currently, however, rationale for the different approaches is unclear. We know very little about the similarities and differences of pain experiences between these groups and whether the apparent differences in approaches to pain management is warranted or not.

This PhD will explore and characterise chronic pain experiences in children and young people with musculoskeletal conditions with different underlying pathologies/diagnoses and will begin to identify the management pathways for these groups.



### **Candidate** Danielle Mountain

We recruited a very high calibre PhD candidate with excellent qualifications including a first class degree from the University of Liverpool, and a distinction level MSc in Neuroscience from the University of Manchester. She has a longstanding interest in pain and pain research and chose these topics for both her undergraduate and postgraduate degrees. Ms Mountain also sought voluntary work Critical Rehabilitation Unit at the Walton Centre (a specialist neurology and pain management centre) in Liverpool.

**Progress to date:** The University of Manchester provides progression milestones to monitor the progress of postgraduate research students. To date, the student has achieved all of the milestones during this six-month period, including a comprehensive literature review which was assessed internally. Examples of the progress made are provided below:

1. We are finalising the search strategy for a systematic literature review of studies of pain characteristics across different pain pathologies. The aim of this is to identify key predictors of pain outcomes in different groups of children and young people.

2. We are developing research protocols, NHS and non-NHSEthics applications and HRA approvals for each of the planned mixed method studies:
  - i. a survey of healthcare professionals' pain beliefs,
  - ii. an interview study of parent's/caregiver's experiences of caring for a child with inflammatory or non-inflammatory pain and
  - iii. a study of children and young peoples' multi-dimensional pain characteristics over time.
3. The student has successfully applied for and been accepted as a trainee in the Pain in Child Health (PICH) group. PICH is an international group of world-leading researchers and clinicians. They are committed to nurturing promising researchers in the field of paediatric pain.
4. The student has attended a number of training opportunities to enhance her skills including academic writing, research methods, and patient and public involvement.
5. The student has undertaken her first presentation to a large departmental academic meeting, and received outstanding feedback.
6. The student has become an integral member of our department, attending as well as seminars within our Centre for Epidemiology and the faculty pain research group.
7. The student has also attended a number of key conferences exploring the latest research in paediatric pain and rheumatology, including the 5th Annual Rheumatology symposium and the Canadian based SickKids "Conquering the Hurt" Conference.

**Changes to the original award:**

Following the unexpected departure of one of the original applicants, Professor Wendy Thomson, we are working more closely with a very experienced clinical academic, Dr Janet McDonagh. As well as being a senior consultant at the paediatric rheumatology department in the Royal Manchester Children's Hospital Dr McDonagh is a leading academic in the field of paediatric rheumatology. She has extensive experience of managing and researching with children and young people with musculoskeletal conditions.