# The IOPTP Newsletter

The International Organisation of Physical Therapists in Paediatrics

Edition 23, May 2020

## *President's Message*

Greetings to you all, I hope you are all experiencing good health and safety in this new world of the Covid-19 pandemic. I imagine there are many stories to be told personally and professionally, as well as new ways of working from home and within communities.
This newsletter is packed full of the impressive work being done by our IOPTP committees. (see spotlight on Research as well as the introduction to our Research grant winner for 2020)
We have created a new webpage for IOPTP at www.ioptp.org. You will find helpful information about IOPTP there. We will continue to have a page on the WCPT website for IOPTP but with less information. You will find our new page much more relevant to what we do with our pediatric practice.
Also, in attempts to increase and improve communication across the world of pediatric PT, we have created the new Facebook page "Friends of IOPTP". This is for individuals working in pediatric PT and this is not limited to IOPTP members. We are hoping this encourages others to join in and become more active with IOPTP while sharing information and resources. The original Facebook page " International Organisation of Physical Therapists in Pediatrics" is for postings from the IOPTP board members about WCPT and IOPTP activities.
The WCPT is working toward creating an amazing Congress in Dubai in 2021. Program content is being submitted and reviewed even now. I hope that many of you are planning to attend this conference.

Best regards,

Sheree York

Sheree York, PT, DPT, PCS, President IOPTP

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For submissions or questions regarding the newsletter please contact the newsletter editor Erin Wentzell PT, DPT, PCS at

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International Organisation of Physical Therapists in Paediatrics

## *IOPTP Committee Spotlight:* The Research Committee

During the fall, we, Assistant Professor Chantal Camden (Sherbrooke University, Canada) and Dr Kine Johansen (Uppsala University, Sweden), took over from Associate Professor Hilda Mulligan (University of Otago, New Zealand) as chairs of the IOPTP research committee. We would like to thank Hilda for the work she has done with the research committee!

To get a more manageable workflow and to be able to use the expertise of the members of the group (21 members from 15 countries!) we decided to let the members organize into subgroups based on their own research interests. Each group was asked to form 1-3 goals to work with during the upcoming year, as well as to appoint one or two leaders/contact persons that will form the steering groups of the research committee.

The subgroups and contact persons are:

- School-based physiotherapy: Chantal Camden and Kristin Macdonald
- Guidelines group: Lizz Carrington
- Review group: Chantal Camden and Linda Fetters
- *Mentoring and ethics group: on hold due to competing priorities*
- Preterm infant and early intervention for infants and toddlers (0-3 years): Kine Johansen
- Communication officer: Anu Kinnunen
- ICF and participation-based early intervention: under formation. This group might even include health promotion, physical activity, physical fitness and wellness.

We look forward to seeing the work proceed and international collaborations being initiated!

Chantal & Kine

## Congratulations to the 2020 IOPTP Research Grant Winner: Dr. Nikki Milne

The IOPTP research committee is proud to announce that the 2020 IOPTP grant winner is Dr Nikki Milne, from Australia.

Her study is entitled "Curriculum for paediatric physiotherapy professional entry-level education: guidance for implementating the essential and recommended content areas – an international Delphi survey".

Good luck Dr Milne with your study!

We encourage PTs from all around the world to prepare their ideas for the 2021 competition.

## Introducing Dr. Chantal Camden: Co-Chair of the Research Committee

Assistant professor, Sherbrooke University

Chantal is an Assistant Professor at the school of Physical and Occupational Therapy at Sherbrooke University. She completed her PhD in Rehabilitation Sciences from the University of Montréal and her Post-Doctoral training at *CanChild* (and is still part of the Partnering for Change team). Her research focuses on developing, implementing and evaluating evidence-based interventions and service delivery models for children with disabilities or at risk of developmental delays. She currently leads projects based in Quebec, Canada, aiming at exploring new screening and intervention strategies using telerehabilitation, school-based collaborative tiered services and community-based services for vulnerable populations. Most of Chantal's projects use participatory-action research approaches and

engage stakeholders to improve service delivery. Chantal is also involved in global health projects. She likes outdoors and actively promote work life balance ; )
Chantal has been involved in the IOPTP research committee since 2017, and currently leads the SCOOPPP study, an international study aiming at documenting PT pediatric practices worldwide, with Hilda Mulligan from New Zealand. She will co-lead the research committee with Kine Johansen, from Sweden. What she hopes to bring to the committee is collaboration, research and KT opportunities, and fun ; )

## Telehealth Spotlight:

In light of the global health emergency caused by Covid-19 we wanted to provide you with some resources that may be of assistance.

- A WCPT task force has produced a document on telehealth and digital service delivery. Evidence, regulation issues, and recommendations provided: http://www.inptra.org/portals/0/pdfs/ReportOfTheWCPTINPTRA_DigitalPhysicalTherapyPractice_TaskForce.pdf
- A website has been launched by a group of American school-based PTs (in collaboration with other PT colleagues around the world) – but resources provided are probably relevant independently of the context in which you practice: n site web qui a été mis en ligne – d'abord pour les physios travaillant en milieu scolaire aux USA, mais probablement des informations utiles pour tous :https://sites.google.com/view/sbptcovid-19perspectives/home
- The Canadian and American Physiotherapy associations, among others, have put online different resources and recommendations: https://physiotherapy.ca/cpas-position-tele-rehabilitation and https://www.apta.org/telehealth/
- There are also lots of discussion on Facebook groups – lots of good ideas and creativity. As always, just a reminder to use your critical judgement while reading the posts, as quality can greatly differ from one post to the other!
- Free online courses on cardiorespi from the Canadian association
- Other resources for Telehealth are listed on the IOPTP website at www.ioptp.org

## *Physical and Occupational Therapy Domains of Knowledge: Assessment of Recall at Admission and Discharge during a Pediatric Chronic Pain Rehabilitation Program*

### Heidi Kempert, PTA

**Aim:** To determine if consistent, repetitive, and multimodal education across an intensive program can help to improve recall of physical and occupational therapy information and recommendations in pediatric chronic pain rehabilitation.

**Background:** The domains of knowledge questionnaire was created as a quality improvement project in an effort to gauge insight, recall, and knowledge before and after a chronic rehabilitation program. Research has shown that patients tend to recall only one third of the information given to them by medical providers. (Dong L, et al. 2017; Kessels R. 2008) In addition, this recall is especially poor when information is related to necessary behavioral change. (Ateja A, et al. 2005) This limited recall then leads to lower adherence to recommendations. (Harvey A, et al. 2016) Recall typically depends on physical and/or psychological circumstances during learning and recall, therefor stress and pain, for example, can limit or impact learning. (Kessels R. 2008)

**Development:** Clinical discussions about program participants who had done well or not well lead to the development of the domains of knowledge. It was identified that those who were unable to develop insight and/or recall important information from physical and occupational therapy components of the program were more inconsistent with physical participation, struggled to identify physical improvement, and may be less likely to maintain gains long term. Additionally, often, patients had already participated in outpatient physical or occupational therapy for chronic pain and seemed to not have base knowledge at admission. Not only is it important that patients understand the general educational concepts discussed but they also needed to be able to figure out how they can apply skills to everyday life and activities which can be challenging. This initial study will review the development of the knowledge assessment, short term findings regarding knowledge at admission, changes in knowledge from admission to discharge, and longer term findings from discharge to follow up.

**Data:** Study data were collected and managed using REDCap electronic data capture tools hosted at Cleveland Clinic. Initially, there were 218 pediatric patients aged between 8 and 18 years with history of chronic pain for at least 3 months or CRPS chronicity at least 8 weeks. Seventy seven adolescents without baseline domain of knowledge were excluded from the study (missing data was primarily due to development of tool). Finally, there were 141 adolescents in the study sample.

**Methods:** Therapists put together a list of 6 main areas of focus and 2-3 questions in each category. The wording of questions, as to if they should be multiple choice or open ended, was discussed at length among PT, OT, and psychology staff. (Rattray J. 2007; Bharati M. 2016) In the end, all questions were framed to allow for open ended answers for this initial study. These questions were then narrowed down to 10 questions where patients would provide qualitative feedback so that staff could gauge insight and recall. Then, in order to quantify insight, staff scored answers to allow for partially correct responses. Each question's answer would be translated to a score of 0, 1, or 2 with a total score of up to 20, therefore interpreting qualitative data into quantitative data. The domains of knowledge assessment was given at admission, discharge, and follow up (if they returned). An example of the questions and scoring sheet is attached.

Education pertaining to the domains of knowledge was provided formally at least 2 x per week in a group setting over the 3 week cycle. Additionally, formal education was systematically provided during 2

individual sessions. Additional education or repeat education was completed on an as needed basis as therapist continually evaluated patient understanding using teach back and show me methods.

As part of the program all key areas are not only discussed but put into practice (i.e. during group sessions specific effort and focus is placed on quality of movement, modifications, and energy management to complete a full 60 second interval of physical activities). All information was provided verbally, as well as in visual handout form during the program, however possibly not with exact wording as domains of knowledge assessment (i.e. domains question may ask "how does posture impact pain" and posture handbook lists why posture is important, how positioning impacts pain, and how bad posture impacts how you feel).

**Challenges with Set Up:** Some of the challenges faced with the initial set up included the questions being too "general" therefore responses had high variability and therapists reviewing them at times would make assumptions about understanding due to bias of knowing the kids in the program or knowing if it was an admission or discharge questionnaire. A scoring sheet was utilized to ensure there was appropriate translation from qualitative to quantitative. Each time staff sat down to score domains, it seemed that program participants continued to provide variable answers that were not already included on score sheet but were not necessarily incorrect (due to variations with wording, incomplete answers, not being specific enough to gauge understanding, etc.) therefor making it challenging to give the full score of "2" on many items without further discussion. It is also important to note that there is a large range of age, vocabulary, learning ability, and cognition of program participants which also causes increased variability of answers. As therapist reviewed surveys and scoring responses as a group they came to a consensus easily. After initial trial, staff identified that rating these was very time consuming and that continuing with the open ended format was not feasible to continue long term. Because of the extent of trial and error, staff was able to see what areas/questions patients most often still lacked ability to recall and ways that patients referred to information. In the end, it seems that a multiple choice template will work best going forward, which was created for future use.

**Statistical Methods:** Continuous variables were described using medians and interquartile ranges (IQR); categorical variables were described using counts and percentages. To assess the change in domain of knowledge, the linear mixed effects model was used with fixed effects for categorical time and autoregressive (order 1) plus random intercepts structure for intra-patient correlation. All analyses were performed on a complete-case basis; subjects with missing data on particular variables were only excluded for analyses in which those variables were used. All tests were two-tailed and performed at an overall significance level of 0.05. SAS 9.4 software (SAS Institute, Cary, NC) was used for all analyses and plots.

**Results:** One hundred forty one patients aged between 9 and 18 years were in the study sample, with an average age of 15 years old and 69.5% of them were females. The most frequent primary diagnosis was headache (30.5%), which was followed by amplified musculoskeletal pain syndrome (19.9%), chronic abdominal pain (14.2%), and complex regional pain syndrome (13.5%).

As noted in figure 1, the domain of knowledge increased significantly from admission (median 7.0) to discharge (median 17.0) with a difference [discharge – admission] = 9.2, 95% CI 8.7 to 9.8, $p < 0.001$. This supports the hypothesis staff made that many participants struggled to learn/recall information from outpatient therapies (as noted by a low admission score on domains) but also supports the first aim to determine if participants gained insight and recall throughout the program. The domains of knowledge did not change significantly after discharge (difference [follow-up - discharge] = -0.46, 95% CI -1.3 to 0.34, $p = 0.26$), with the median score at both discharge and follow up being a 17.0. This was as anticipated, as it demonstrates that participants were able to maintain their improved insight and recall of information after several weeks/months out of the program. In theory, this also means they were using essential skills to support long term functioning.

**Conclusions:** Adolescents that participated in the program seemed to gain insight and knowledge from therapies noted by statistical significance in scores on their domains of knowledge. In addition they maintained knowledge at follow up. This highlights the impact that a quality improvement project can have on patient outcomes. Not only did adolescents enhance understanding and learning but they also maintained knowledge long term. It also seems that more focus on educational components, concepts, and teaching methods helped improve insight from occupational and physical therapies.

**Acknowledgments:** Dr. Erin Brannon and Heidi Kempert had the initial idea for the domains of knowledge. The initial outline was created by Heidi Kempert with additions and changes being made by Heidi Kempert, Rachel Heines, and Lauren Nelson. All three also completed review of initial assessments to ensure appropriate translation of qualitative data to quantitative data. Dr. Brannon helped throughout the process to ensure methodology was appropriate and adequate. Heidi Kempert, PTA, Rachel Heines, PT, Lauren Nelson, OT, and Nicole Zetzer, PT, all completed ongoing scoring of the domains of knowledge until it was switched to multiple choice. Wei Liu, biostatistician, reviewed data and provided statistical analysis for this study.

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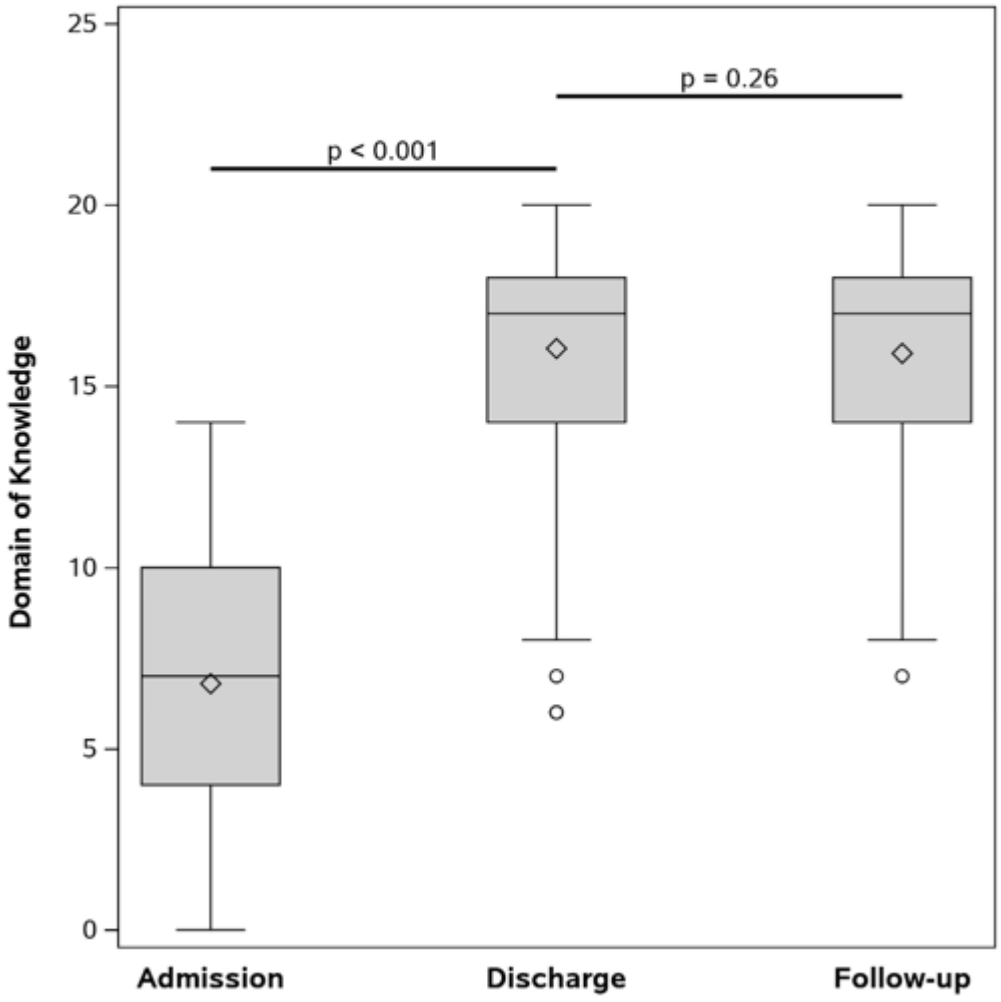
**Figure 1. Box plots of domain of knowledge by three time points**



# *Treatment Philosophy and Approach for Physical and Occupational Therapy when Treating Pediatric Chronic Pain*

## Heidi Kempert, PTA

As reported in previous research, chronic pain impacts between 11-38% of children and adolescents (King et al, 2011, Hogan M et al., 2016) and costs 19.5 billion in the US alone. (Groenewald et al., 2016). Chronic pain is typically referring to pain that lasts more than 3 months that is persistent and/or recurrent and can be complex and can result in significant declines in functioning. Often there are significant psychiatric comorbidities (anxiety, depression, ADHD, etc.) that accompany chronic pain and as chronic pain continues, these comorbidities may increase or worsen (Soltani et al., 2019; Walker et al. 2012; Campo J., 2012; Harris et al., 2015; Tegethoff et al., 2015). It has also been found that chronic pain often continues into young adulthood and impacts other areas of one's life significantly (preventing higher level education, ability to work, quality of life, etc.) (Walker et al., 2012; Brna et al., 2005).

With this being said there are many important disciplines that play roles in the treatment of chronic pain such as therapies, psychology, and medical professionals. With the goal of improving function before expecting improvements in pain, physical and occupational therapy have an important, but challenging role. It seems these disciplines are expected to minimize pain levels simultaneously as one's functioning improves. One potential barrier of effective physical therapy treatment can simply be the lack of chronic pain specific education as part of current curriculums. (Hurley-Wallace A et al., 2019; Martin & Zeltzer, 2018; Thompson K et al., 2009). Knowing what level of pain is "acceptable" and how to progress an individual despite ongoing pain are imperative to chronic pain rehabilitation.

The goal of this article is to enhance current knowledge of chronic pain treatment by highlighting key elements of treatment philosophy, approach, and how clinicians can apply this in multiple settings. What is focused on, how interventions are completed, and how education is done with patients and families can make a large difference, specifically long-term outcomes.

The main frame work in which most chronic pain rehabilitation programs treat from includes these main concepts:

1. *Focus on function before expecting pain relief:* When speaking about focusing on function before expecting pain relief how we need to explain this to ourselves as clinicians, but also to our patients, is that there are other issues that come from inactivity. When someone experiences pain for a long period of time they typically become more deconditioned which impacts their whole body and their ability to function. We need to explain that first we need to help recondition muscles, joints, strengthen movement patterns, etc. to help typical mobility and function feel more comfortable.
2. *Treat each individual as an individual – not according to simply their diagnosis:* In physical therapy we tend to live by treatment protocols and guidelines. With chronic pain we need to know of and understand the pain diagnosis but we also need to view and look at the individual as a whole. What areas of functioning are lacking the most, what types of positioning or activities are the most challenging, and what do they want to get back to?
3. *Incorporate multidisciplinary or interdisciplinary concepts when possible:* It is important to use other skills and concepts to facilitate improved participation with challenging physical activities. If a patient is very anxious or fear avoidant we need to attempt to blend in some coping or relaxation strategies to manage their fear before continuing with a task. If a patient is not taking a medication to help manage anxiety or depression we can reiterate or encourage why that medication was recommended and why it is important for the patient to continue taking the medication.
4. *Incorporate the "Golden Rules of Chronic Pain" by Lonnie Zeltzer (Zeltzer, L.K and Schlank C.B, 2005) or another similar set of "rules" or "guidelines" for your team.*
    a. All Pain Is Real: Everyone has their own pain experience with which others can't and shouldn't disagree with. Pain is caused by complex interactions between the body and the brain. Don't be a provider that says "it must be in your head" or "It can't really hurt that much". Instead, you can offer suggestions about activities and techniques that might be more comfortable and support that function and movement must occur first, before pain can improve.
    b. Improvement is First Measured by Increased Functioning: We are on the right track when our patients can do more and function more typically. We do not have to (and shouldn't) base treatment solely on pain reduction or management. We need to look at improved strength,

flexibility, ease of movement, and return to life outside of therapy as our measure of improvement.

c. Don't Ask About Pain: Aside from allowing our patient to report new or different pain (to rule out acute injury), it is not helpful to ask about pain level as this will increase the individual's focus on discomfort and pain. Try to keep the focus away from pain and instead on improvements. Monitor and observe tolerance to activities while encouraging continuation if and when possible. It is helpful to point out improvements to the individual (i.e. "I saw that you were able to do 10 more squats with less grimacing and better breathing today").

d. Exercise Is Good for Sleep and For Chronic Pain: We should highlight the importance and impact of non-impact aerobic exercise on the body, our immune system, and our body's ability to regulate pain.

e. Sleep Is Good: We can educate our patients that lack of sleep impacts both pain and functioning and are inter-related. It is helpful to have a regular routine to regulate sleep such as going to bed at the same time and getting up at the same time or avoiding use of a bed during the day for naps or homework.

f. Reduce Anxiety: Fear, worry, and anxiety does not cause pain but can make pain worse. Reducing anxiety can improve pain level, enhance recovery time, and leads to improvements in other areas of life. We can make sure that our treatment sessions are aiding in reduced anxiety vs increasing anxiety by simply talking with our patients about what makes them worried.

g. A Long-Term Problem Requires A Long-Term Solution: Worsening of functioning and symptoms from chronic pain worsen over time, therefore it will similarly take time to improve. We need to reiterate to our patients that there is unfortunately no "quick fix" and that they must work on consistently following through with physical and occupational therapy recommendations to seem gradual improvements over time. Most patients prefer passive interventions because they "feel good" and don't require much movement, however then when they have pain again a day or two later, they either feel they have to schedule another appointment, or they may think "therapy doesn't work". We need to educate our patients that each intervention alone is not the answer but that it's a combination of tools and their follow through over time. It is often a better use of our time, especially with initial treatment, to teach active skills and strategies that the patient can complete or work on daily to help improve

strength and mobility (i.e. completing chin tucks daily vs using cervical traction in PT 1 x per week).

Lastly, education is a part of every single session. It is important that individuals are able to understand, recall, and apply information we teach them in sessions to help support functioning throughout the day/week. In addition to teaching information we also help the patient put each concept into practice. There are 5 key areas to focus on during patient and family education that pertain specifically to physical and occupational therapy concepts.

1. Importance of improving general deconditioning: Because of your pain you have not been as active as you once were. There is importance in working to improve your general strength, endurance, ability to complete ADL's and functional tasks, and mobility. Once your body can move more easily and is stronger, it will most likely feel better. Discuss why therapies will focus on the whole body not just the area(s) where the individual reports pain. (i.e. "If you haven't been walking very much what areas of your body do you think are weak? How does that/can that impact function and pain?")
2. Explanation of muscle imbalances: Most, if not all, of the patients we see have significant muscle imbalances as a result of deconditioning, guarding, and habitual movement patterns. If we don't address muscle imbalances then pain will most likely continue, if not get worse. (i.e. "If you continue to decrease your weight through your right foot will that help or hurt your stability musculature through the right leg?" Or point out/discuss that weak musculature can lead to acute pain such as patellofemoral discomfort or getting a tendonitis). We also talk about the importance of improving mobility of muscles at the same rate we improve stability to progress the body at the best rate.
3. Improving body awareness: It is important to teach patients about how they position their body for comfort and how they use their body inappropriately at times to compensate for decreased strength. Specifically, education about joint conservation and alignment is important, including one's ability to identify proper alignment for activities without overusing end range and hypermobility. (i.e. "Can you demonstrate good vs bad alignment with the following activities? Can you complete this exercise until your form changes and then tell me when that occurs?"). The

more they can be aware of how they are doing a task they can more easily adjust to improve comfort and ability. With this we also teach them how to identify muscle fatigue, change in form, and other variables that may be a sign that they need to take a break or stop an activity.

4. Improving energy conservation: Very often children with chronic pain are unaware of how to pace or conserve energy. They have good days (and tend to overdo it), and bad days (they tend to be less active), and an uneven level of function. Education about energy conservation and pacing is improves our patients ability to know their bodies limits and to minimize the highs and lows to improve consistency. We want them to know during each activity of the day how much to push and be more mindful about energy boosters and energy wasters. (i.e. "How do you know when you need to take a break? What can you do during a break to help restore your energy? What things do you do that might waste energy during your rest breaks?")
5. Relapse prevention and injury prevention: We talk very openly about relapse and what can cause it in the future (doing too many new things at once, not pacing well, increased stress, not following through with recommended therapies, etc.). We teach what preferred movement patterns, habits, etc. may lead to acute injury or relapse and teach them how to prevent these things from happening. One of the ways this can be accomplished is by teaching each child how to modify activities to make them more appropriate for their CURRENT ability. (i.e. "If you are trying to participate in gym class and the teacher asks you to do pull ups for 1 minute, should you try it?" Help them walk through how they can determine if it's appropriate to try and if not how to modify). We also review concepts to help individuals identify if they are experiencing chronic pain and can/should continue a task vs acute pain and should stop or modify an activity.

In summary, physical and occupational therapists who are treating older children, adolescents, and young adults with chronic pain should all be using a similar approach and philosophy regardless of their clinical setting. The framework and philosophy used by multidisciplinary chronic pain rehabilitation teams can also be implemented with modification in other single discipline, outpatient settings.

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# Tools to help navigate childhood pain

FORUM

**Rebecca Fechner, APAM**

COMMENT Physiotherapists have access to a tool that can be used to motivate families despite the overwhelming challenge and distress of childhood chronic pain.

This article was originally published in the Australian Journal of Physiotherapy Magazine *Inmotion* November, 2019.

It is well known that the gold standard for chronic pain management for adults and children involves biopsychosocial care in multidisciplinary teams (Harrison et al 2019).

Deconditioning is a common aspect of pain presentations due to withdrawal from participation in activities such as school, sport and leisure. Physiotherapists are vital team members for assessment and treatment of deconditioning, which has been traditionally performed with a focus on reconditioning fitness, strength and endurance, as well as biomechanical factors such as improving range of motion.

However, with young people, this approach overlooks the importance of re-establishing the achievement of motor proficiency milestones which include a complex interplay of sensory processing, body awareness, coordination, agility and fine tuning of the balance system. These represent critical aspects of normal child and adolescent development, which have often gone awry in pain presentations in childhood and interfere with ongoing developmental trajectory.

It has been shown that unresolved pain disorders in childhood and adolescence incur a high risk for pain disorders, physical issues and mental health problems in adulthood (Noel et al 2016). Development is a dynamic process that occurs through engagement in activity and motor function which promotes cognitive

and perceptual development (Piek et al 2006). When a child's attainment of expected motor proficiencies is interrupted due to pain, such as through withdrawal from activity, physical delays can become part of the problem. This can lead to clear long-term side effects in all domains of functioning including social, cognitive, emotional, sensory and physical domains. It is easy to imagine how this could snowball and affect a young person's participation in activities that would further influence their development. As such, assessing motor proficiency delays either as a consequence or precursor to chronic pain is important to re-establishing normal developmental trajectories and thus reducing the long-term effects of pain disorders.

In order to assess motor proficiency in this group of vulnerable young people, I propose the use of a developmental assessment tool with age-norm referenced data. This could allow physiotherapists and their colleagues to positively impact the developmental trajectories of young people who may otherwise be susceptible to the long-term effects of delayed milestone achievement into adulthood. The first step in this process is the implementation of an appropriate assessment tool with age-norm referenced data into current models of care. This would form part of a suite of allied health measures that accurately quantify and monitor improvements over time.

The Queensland Interdisciplinary Paediatric Persistent Pain Service has implemented the Bruininks-Oseretsky Test of Motor Proficiency, Second Edition (BOT2) as part of an initial assessment tool for young people engaging in allied health interventions for persistent pain. The BOT2 is a validated tool with high test-retest and inter-rater reliability (Griffiths et al 2018). It measures gross and fine motor performance, including measurements of fine manual control, manual coordination, body coordination and strength and agility for people aged four to 21 years (Bruininks & Bruininks 2005). This tool identifies motor proficiency delays at assessment to assist the team in developing an ongoing formulation for the chronic pain experience and hence guide treatment approaches for the team.

I foresee that the utility of the BOT2 will be three-fold and set the scene for rich research opportunities. Firstly, sharing the results of the BOT2 with families will increase investment in treatment. Parents can be reluctant to challenge their children to participate in activities if the child is experiencing pain and distress, or if the activities are perceived to exacerbate pain. Given that treatment of chronic pain is counterintuitive, and children must engage in challenging activities to improve their function and pain experience, motivation is critical. It has been my experience that if delays and their potential long-term impact can be demonstrated tangibly to parents, such as with age-norms, their motivation to participate in therapy increases. Despite the challenge of therapy, parents can be more easily recruited as 'co-therapists' working towards the shared goal of resuming the individual's developmental trajectory, through graded exposure to developmentally appropriate and challenging activities.

Secondly, identification of reduced proficiency in specific domains may help to target more specific interventions. Allied health teams can verify whether interventions are achieving biopsychosocial goals and positively influencing developmental trajectories.

Thirdly, as the BOT2 is sensitive to developmental conditions such as Developmental Coordination Disorder (DCD), it may assist in identifying common precursors to paediatric pain conditions or comorbidities otherwise potentially dismissed such as DCD, particularly in middle school age children. This could allow treating teams to have more specific data to refer on to appropriate paediatric teams if treatment interventions do not make clinical change to BOT2 scores.

Finally, I am hopeful that if practitioners use a consistent tool such as the BOT2 across paediatric pain settings throughout the world, we will have opportunities for collaborations and research drawn from rich objective data.

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# *Implementation of a rapid access clinic for paediatric complex regional pain syndrome: A quality improvement project*

*Giulia Mesaroli[1], Geraldine Cullen-Dean[2], Catherine Munns[3,] Stephen Brown[4]*

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**Background:** Complex regional pain syndrome type 1 (CRPS-1) is a painful condition of a limb characterized by a constellation of symptoms that occur most typically after a minor trauma. In pediatrics, the average age of onset is 12 years, is more prevalent in females, and most commonly occurs in the lower limb. Clinical expertise suggests that early access to intervention and treatment may lead to a more favorable prognosis. The International Association for the Study of Pain suggests 1-week wait-time for acute onset CRPS-1 to receive pain specialist assessment. The Chronic Pain Clinic at The Hospital for Sick Children in Toronto, Canada, implemented the Rapid Access Clinic (RAC) for pediatric CRPS-1 as a quality improvement project. Main outcomes included (1) reduction in wait-times for interprofessional assessment; (2) reduction in wait-times for physical and psychological therapy; (3) feasibility and (4) acceptability.

**Methods:** The RAC was implemented in April 2019. Patients referred to our centre with suspected CRPS-1 underwent a rapid triage process, interprofessional assessment (including an Anesthesiologist, Clinical Nurse Specialist, Physiotherapist and Psychologist), and rapid access to treatments.

**Results:** Wait-times were significantly reduced for triage (mean=1.4 days), assessment (mean=15 days) and intervention (mean=6.6 days physiotherapy, mean=11.3 days psychology). Data obtained from patient and family satisfaction surveys and staff focus group yielded highly positive results.

**Discussion:** This novel approach to assessing paediatric CRPS-1 is feasible, acceptable and resulted in a significant reduction in wait-times. Further evaluation is needed to understand if early intervention lead to improve outcomes in this population.

The IOPTP board encourages participation in the **European paediatric conference in the Netherlands** this November. https://husite.nl/euppt/


The UK Pediatric Conference planned for fall of 2020 has been rescheduled for October 2021. More details to come.

The World Confederation For Physical Therapy Congress is scheduled for April 8-10, 2021 in Dubai. Visit the WCPT website at www.wcpt.org for more information.

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