

**September, 2017 Topic:
Pain Assessment and Outcome Measures**

Bibliography

Fennelly, O. p., Blake, C. p., Desmeules, F. p., Stokes, D. p., & Cunningham, C. p. (2017). Patient-reported outcome measures in advanced musculoskeletal physiotherapy\par practice: a systematic review.\par. *Musculoskeletal Care*\par. doi:10.1002/msc.1200

Kempert, H. p., Benore, E. p., & Heines, R. p. (2017). Physical and occupational therapy outcomes: Adolescents' change in functional\par abilities using objective measures and self-report.\par. *Scand J Pain*\par, 14\par, 60-66\par. doi:10.1016/j.sjpain.2016.10.004

Kingsnorth, S. p., Orava, T. p., Provvidenza, C. p., Adler, E. p., Ami, N. p., Gresley-Jones, T. p., . . . Fehlings, D. p. (2015). Chronic Pain Assessment Tools for Cerebral Palsy: A Systematic Review.\par. *Pediatrics*\par, 136\par(4\par), e947-960\par. doi:10.1542/peds.2015-0273

Taylor, A. M. p., Phillips, K. p., Patel, K. V. p., Turk, D. C. p., Dworkin, R. H. p., Beaton, D. p., . . . Witter, J. p. (2016). Assessment of physical function and participation in chronic pain clinical\par trials: IMMPACT/OMERACT recommendations.\par. *Pain*\par, 157\par(9\par), 1836-1850\par. doi:10.1097/j.pain.0000000000000577

Patient-reported outcome measures in advanced musculoskeletal physiotherapy\par practice: a systematic review.

(Fennelly, Blake, Desmeules, Stokes, & Cunningham, 2017)

Abstract

OBJECTIVE:

Advanced practice physiotherapists (APPs), also known as extended scope physiotherapists, provide a new model of service delivery for musculoskeletal (MSK) disorders. Research to date has largely focused on health service efficiencies, with less emphasis on patient outcomes. The present systematic review aimed to identify the patient-reported outcome measures (PROMs) being utilized by APPs.

METHOD:

A wide search strategy was employed, including the PubMed, Embase, CINAHL, CENTRAL and PEDro databases, to identify studies relating to PROMs utilized by APPs in MSK healthcare settings. PROMs identified were classified into predetermined outcome domains, with additional contextual data extracted.

RESULTS:

Of the initial 12,302 studies, 38 met the inclusion criteria. These involved APPs across different settings, utilizing 72 different PROMs and most commonly capturing: Patient Satisfaction, Quality of Life (QoL), Functional Status, and Pain; and, less frequently: Global Status (i.e. overall improvement), Psychological Well-Being, Work ability, and Healthcare Consumption and Costs. The quality of the PROMs varied greatly, with Satisfaction most commonly measured utilizing non-standardized locally-devised tools; the EuroQoL five-dimension questionnaire (EuroQoL-5D) and 36-Item Short-Form (SF-36) cited most frequently to capture QoL; and the

Visual Analogue Scale (VAS) to capture Pain. No key measure was identified to capture Functional Status, with 15 different tools utilized.

CONCLUSION:

APPs utilized a multiplicity of PROMs across a range of MSK disorders. The present review will act as an important resource, informing the selection of outcomes for MSK disorders, with a view to greater standardization of outcome measurement in MSK clinical practice, service evaluation and research.

Journal Articles

Adolescents' change in functional abilities using objective measures and self-report.

(Kempert, Benore, & Heines, 2017)

Abstract

PURPOSE:

This study evaluates the clinical usefulness of patient-rated and objective measures to identify physically-oriented functional changes after an intensive chronic pain program in a pediatric setting. Past studies have demonstrated the importance of adolescents' perception of their abilities and measurement tools used for rehabilitation outcomes within physical and occupational therapy; however, these tools used are not often easily utilized or have not been examined with a pediatric chronic pain population. In chronic pain rehabilitation, it is important to have a primary focus on functional improvement not on pain reduction as a leading outcome. This study examines how both self-report and objective physical activity measures can be meaningful constructs and can be used as reliable outcome measures. It was hypothesized that adolescents completing an interdisciplinary pain rehabilitation program would report functional gains from admission to discharge, and that perceived gains in physical ability would be associated with objective physical activities. Further, it was hypothesized that gains in functioning would be associated with mild pain reduction.

METHODS:

Data from 78 children and adolescents with chronic pain that participated in an intensive multidisciplinary treatment program completed self-report measures including the Lower Extremity Functional Scale (LEFS), Upper Extremity Functional Index (UEFI). In addition, adolescents were objectively monitored for repetitions of selected physical activities for 1min intervals.

RESULTS:

Data demonstrated significant gains in all measures of functioning during the program. Correlations between self-report and objective outcomes suggest they are measuring similar yet distinct factors.

CONCLUSIONS:

The LEFS, UEFI, and objective exercises provide a meaningful way to track progress in pediatric chronic pain rehabilitation. Despite similarities, they appear to track separate but related aspects of rehabilitation and capture important short-term response to rehabilitation. Both measures appear distinct from pain as an outcome. These findings increase our understanding of rehabilitation practices provide opportunities to promote clinical improvement in pediatric pain.

IMPLICATIONS:

The use of self-report measures along with objective measures can help therapists gain understanding in regards to a patient's insight and how that may impact their overall outcome compared to the use of a single outcome measure. Viewing these rated measures at any point in the rehabilitation process can be useful to facilitate discussion about challenges they can identify and how therapies can facilitate improvement and functional gains.

Chronic Pain Assessment Tools for Cerebral Palsy: A Systematic Review.

(Kingsnorth et al., 2015)

Abstract

BACKGROUND AND OBJECTIVE:

Chronic pain in children with cerebral palsy (CP) is under recognized, leading to detriments in their physical, social, and mental well-being. Our objective was to identify, describe, and critique pediatric chronic pain assessment tools and make recommendations for clinical use for children with CP. Secondly, develop an evidence-informed toolbox to support clinicians in the assessment of chronic pain in children with disabilities.

METHODS:

Ovid Medline, Cumulative Index to Nursing and Allied Health Literature, and Embase databases were systematically searched by using key terms "chronic pain" and "clinical assessment tool" between January 2012 and July 2014. Tools from multiple pediatric health conditions were explored contingent on inclusion criteria: (1) children 1 to 18 years; (2) assessment focus on chronic pain; (3) psychometric properties reported; (4) written in English between 1980 and 2014. Pediatric chronic pain assessment tools were extracted and corresponding validation articles were sought for review. Detailed tool descriptions were composed and each tool underwent a formal critique of psychometric properties and clinical utility.

RESULTS:

Of the retrieved 2652 articles, 250 articles met eligibility, from which 52 chronic pain assessment tools were retrieved. A consensus among interprofessional working group members determined 7 chronic pain interference tools to be of importance. Not all tools have been validated with children with CP nor is there 1 tool to meet the needs of all children experiencing chronic pain.

CONCLUSIONS:

This study has systematically reviewed and recommended, through expert consensus, valid and reliable chronic pain interference assessment tools for children with disabilities.

Assessment of physical function and participation in chronic pain clinical trials: IMPACT/OMERACT recommendations.

(Taylor et al., 2016)

Abstract

Although pain reduction is commonly the primary outcome in chronic pain clinical trials, physical functioning is also important. A challenge in designing chronic pain trials to determine efficacy and effectiveness of therapies is obtaining appropriate information about the impact of an intervention on physical function. The Initiative on Methods, Measurement, and Pain

Assessment in Clinical Trials (IMMPACT) and Outcome Measures in Rheumatology (OMERACT) convened a meeting to consider assessment of physical functioning and participation in research on chronic pain. The primary purpose of this article is to synthesize evidence on the scope of physical functioning to inform work on refining physical function outcome measurement. We address issues in assessing this broad construct and provide examples of frequently used measures of relevant concepts. Investigators can assess physical functioning using patient-reported outcome (PRO), performance-based, and objective measures of activity. This article aims to provide support for the use of these measures, covering broad aspects of functioning, including work participation, social participation, and caregiver burden, which researchers should consider when designing chronic pain clinical trials. Investigators should consider the inclusion of both PROs and performance-based measures as they provide different but also important complementary information. The development and use of reliable and valid PROs and performance-based measures of physical functioning may expedite development of treatments, and standardization of these measures has the potential to facilitate comparison across studies. We provide recommendations regarding important domains to stimulate research to develop tools that are more robust, address consistency and standardization, and engage patients early in tool development