

A qualitative study examining the validity and comprehensibility of physical activity items: developed and tested in children with juvenile idiopathic arthritis



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Biography

Flodén has expertise in physical activity, with a bachelor's degree in physiotherapy and a MSc in public health. Interest lies in how physical activity can improve inflammation markers or function in pediatric patients. Working with more experienced researchers from the Karolinska Institute, with guidance of prof. Iversen of Northeastern University, the goal is to create clinically relevant research-projects that patients feel inspired to partake in.

Abstract

Statement of the Problem: Pediatric patients with juvenile idiopathic arthritis (JIA) have demonstrated lower levels of physical activity (PA) than healthy peers. On reaching adulthood, patients with JIA demonstrate a higher prevalence of arterial calcification when compared to age-matched controls, further implicating the importance of early interventions ameliorating cardiovascular inflammation in these patients. However, not all available measurement methods of PA adequately assess PA intensity, duration or modes. Even less so in pediatric populations. Prior to our study, PA-assessment in pediatric JIA populations have used generic questionnaires that have not been applicable to pediatrics and are sometimes comprehensible to the children, rendering the answers unreliable. The purpose of this study is to validity-test a newly developed PA-questionnaire (PAQ) for pediatric JIA-patients between 10-16 years of age.

Methodology & Theoretical Orientations: A qualitative interview-based study, conducted through audiotaped cognitive interviewing to identify children's comprehension of questionnaire items. Interviews were analyzed independently in two phases; 10 interviews analyzed and questionnaire modified & 20 interviews analyzed, and questionnaire finalized.

Findings: With a decreasing amount of comments per phase (phase 1:219, phase 2:95), the newer layout of the PAQ facilitated recall of directions or efficiency in answering the items. Children found it easier to recall and provide answers on activity specific items rather than intensity-composite questions. The development of the questionnaire took this into consideration.

Conclusion & Significance: The final version of our PAQ, the ASCeND, appear to be easy to answer and comprehend when assessing PA in JIA-patients. Our data indicate there are numerous issues associated with using PAQ intensity items in children related to the conceptualization of strenuous, moderate or light intensity activities. Formatting PAQs to enable easy alignment between activity, intensity and response options appear to reduce issues with tracking responses.

Publications

Physical activity in adolescents with juvenile idiopathic arthritis

Arterial haemodynamics and coronary artery calcification in adult patients with juvenile idiopathic arthritis

Specific sports habits, leisure-time physical activity, and school-educational physical activity in children with juvenile idiopathic arthritis: patterns and barriers

Activity	Intensity	Response Options
Walking	Light	1-5
Walking	Moderate	1-5
Walking	Strenuous	1-5
Running	Light	1-5
Running	Moderate	1-5
Running	Strenuous	1-5
Cycling	Light	1-5
Cycling	Moderate	1-5
Cycling	Strenuous	1-5
Swimming	Light	1-5
Swimming	Moderate	1-5
Swimming	Strenuous	1-5