

when adolescents were instructed to modify sports participation. Data was only included if they had a valid week which consisted of at least 4 days with 10 hours of wear-time. Time spent in consecutive sedentary bouts of ≥ 10 minutes was used to calculate the average daily sedentary time.

Results Baseline sedentary time for adolescents with PFP and OSD were 344 (± 74) and 349 (± 39) min/day, respectively. For adolescents with PFP the mean change in sedentary time was 14 min/day (95% CI, -3 to 30min) and 8 min/day (95% CI, -7 to 24) for OSD during activity modification.

Conclusion A management strategy focusing on activity modification, education, and exercises was associated with none or only small changes in sedentary time.

92 GOOD SHORT-TERM EFFECT OF SELF-MANAGEMENT REHABILITATION IS ASSOCIATED WITH LONG-TERM SUCCESSFUL OUTCOME IN ADOLESCENTS WITH PATELLOFEMORAL PAIN AND OSGOOD-SCHLATTER

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Introduction Short-term self-reported changes may be more strongly associated with long-term prognosis as they describe a disease trajectory and not a state. This study aimed to investigate the association between Global Rating of Change (GROC) after 4 weeks and the outcome after 12 months among adolescents with non-traumatic knee pain (Patellofemoral Pain (PFP) or Osgood-Schlatter (OSD)).

Material and Methods We included data from two prospective clinical trials including adolescents (aged 10–14 years) with PFP (N=151) or OSD (N=51) who underwent a self-management rehabilitation programme including education and exercise. Primary outcome was a 7-point GROC ranging from “much improved” to “much worse”. Adolescents were considered to have a successful outcome if they reported being “much improved” or “improved”. Outcomes were collected after 4 weeks and 12 months.

Results Among adolescents with an unsuccessful outcome after 4 weeks (58% of all adolescents), 78% had a successful outcome after 12 months. Among those with a successful outcome after 4 weeks (42% of all adolescents), 94% had a successful outcome after 12 months. Having a successful outcome after 4 weeks increased the relative risk of a successful outcome after 12 months (relative risk 1.21 (95%CI: 1.07–1.38) and absolute risk difference: 16%.

Conclusion Self-reported improvement after 4-weeks of treatment is associated with better outcomes after 12 months. Importantly, despite no improvement after 4 weeks, a large proportion of adolescents between 10 and 14 years of age will report improvement after 12 months. This highlights the importance of following the rehabilitation programme irrespective of short-term improvements.

85 DO ADOLESCENTS WITH OSGOOD SCHLATTER DISPLAY NOCIPLASTIC PAIN MANIFESTATIONS?

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Background Osgood Schlatter disease (OSD) is a commonly seen musculoskeletal pain condition in active adolescents. OSD is an overuse injury, where the underlying mechanism is considered to be nociceptive, but other mechanisms have not yet been considered. Therefore, this study investigates pain sensitivity and inhibition through the paradigm of exercise-induced hypoalgesia (EIH) in adolescents with OSD compared to controls.

Methods All adolescents went through a baseline assessment including clinical history, demographics and sport participation. Pain severity was rated (0–10) during a 45-second anterior knee pain provocation (AKPP) test. Pressure pain thresholds (PPTs) were assessed bilaterally at the quadriceps, tibialis anterior muscle, and the patella tendon before and after the EIH paradigm (a three-minute isometric wall squat exercise).

Results Forty-nine adolescents (27 OSD, 22 controls) were included. No differences in the EIH effect between OSD and controls were observed. EIH was detected in both groups, but only at the tendon with a 48 kPa (95%CI 14–82) increase in PPTs from before to after exercise. Controls had higher PPTs at the patellar tendon (mean difference 184kPa 95%CI 55–313), tibialis anterior (mean difference 139kPa 95%CI 24–254), and rectus femoris (mean difference 149 kPa 95%CI 33–265). Higher AKPP pain severity was associated with lower EIH at the tendon (Pearson correlation = 0.48; $p = 0.011$) in participants with OSD.

Conclusion Adolescents with OSD display increased pain sensitivity locally, proximally, and distally but similar endogenous pain modulation compared to healthy controls. Greater severity appears to be associated with less efficient pain inhibition during the EIH paradigm.

93 10-YEAR PROGNOSIS OF ADOLESCENT KNEE PAIN – A PROSPECTIVE POPULATION-BASED COHORT STUDY

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Introduction Knee pain affects one in three adolescents. No studies have prospectively evaluated the long-term impact of knee pain in later life. The Adolescent Pain in Aalborg (APA