Conclusion: Using three increasingly complex definitions, we found pain flares were common and lasted up to 11 days based on self-reported pain severity. Future analysis should examine the role of pain impact and compare within-person exposures during pre-flare periods with non-flare periods.

**REFERENCES:**


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**POS0259**

**DO CHRONIC PAIN IN MULTIPLE SITES AND WIDESPREAD PAIN INCREASE RISK OF INCIDENT DEMENTIA?**

**Keywords:** Pain, Epidemiology, Patient reported outcomes

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**Background:** Psychosocial circumstances are strongly associated with the onset and prognosis of chronic musculoskeletal (MSK) pain. However, it is unknown whether they precede, coexist with or follow MSK pain conditions. Bullying during youth is a particularly damaging but modifiable social experience that is known to influence with health status, potentially including pain memories and responses to noxious stimuli.

**Objectives:** To aim to quantify the longitudinal associations between bullying profiles and musculoskeletal pain (reported history and pressure pain sensitivity) in a large population-based cohort of adolescents followed since birth.

**Methods:** We used data from the 10 and 13 years waves of the Generation XXI birth cohort study based in Porto, Portugal. Data on youth pain history were collected during face to face interviews from parents (age 10) and adolescents (age 13) using the Luebeck pain screening questionnaire. MSK pain was considered present when the participant had recurrent pain in one of the following sites: back, neck, shoulders, upper/lower limbs, hips, or generalized MSK pain. A subsample of the cohort undertaken quantitative sensory testing using computerized deep tissue cuft pressure algometry in the legs, which allowed estimating pain detection/tolerance thresholds, and measuring pain intensity ratings.

Bullying profiles were computed for the 10 and 13 years waves based on responses to the Bully Scale Survey and participants were classified as “victim only”, “both victim and aggressor”, “aggressor only”, or “not involved”. Cross-sectional and longitudinal associations between bullying profiles and reported pain were quantified using relative risks (RR) and 95% confidence intervals (95% CI) obtained using Poisson regression. Associations between bullying and pain sensitivity were estimated using linear regression coefficients and 95% CI. Estimates were adjusted for sex and number of Adverse Childhood Experiences adapted from the questionnaire by Felitti et al.

**Results:** Among the 4049 adolescents examined, bullying profiles at age 10 were associated with MSK pain at age 13, whereas there were no associations between MSK pain at age 10 and bullying profiles at age 13. Cross-sectional associations between bullying and MSK pain history were present at 10 and 13 years.

When compared to adolescents “not involved” in bullying, those who reported being victims at age 10 had higher risk of reporting MSK pain at age 13: RR (95% CI) 1.28 (1.06, 1.55) for “victims only” and 1.30 (1.06, 1.48) among “both victims and aggressors” (Figure below). “Aggressors only” did not show clear differences in terms of pain history. Among the 1727 adolescents who underwent cuft pressure algometry, those who were “victims only” at age 10 had lower average pain detection and tolerance thresholds at 13 years [linear regression coefficients (95% CI): -1.81 (-3.29, -0.33) for detection and -2.73 (-5.17, -0.29) for tolerance], as well as higher pain intensity ratings [0.37 (0.07, 0.68) and 0.39 (0.06, 0.72)] when compared with adolescents not involved in bullying. No differences were found for sex and number of Adverse Childhood Experiences adapted from the questionnaire by Felitti et al.

**Conclusion:** Our study provides prospective evidence that bullying victimization is more likely to lead to negative reported MSK pain experiences than the reverse. Bullying may have long-term influence on the risk of chronic musculoskeletal pain and may interfere with somatosensory responses to painful stimuli.